NEWS BRIEFS

● DELAWARE RIVER PORT AUTHORITY has instructed Gibbs & Hill, Inc., consulting engineers, to proceed with the electrification, signals and communications aspects of a project to extend the Philadelphia-Camden Rapid Transit System 10 miles southeastward from Camden, N.J. to Kirkwood.

● FCC has authorized the Electronic Industries Association's Land Mobile Communication Section, using computer techniques and the FCC's official frequency cards, to make a comprehensive study of the state of frequency congestion in the land mobile radio services. *Telecommunications Reports* reported that the Commission's cards are to be duplicated and analyzed from a number of directions covering current land mobile service authorizations in the common carrier, public safety, industrial, land transportation and citizens radio services.

EIA expects to develop facts with respect to the number of land mobile radio systems and units in specific geographic areas on each frequency assigned to these services, thereby gaining additional information pertinent to the loading of these frequencies in any service in any area. The FCC also suggested that the study take into account fixed station assignments in the land mobile bands.

● FCC Commissioner Robert E. Lee has proposed formation of a joint government-industry committee to define the problems of the non-broadcast radio services, including the common carrier field, and come up with recommendations for their solution. Commissioner Lee's plan, according to *Telecommunications Reports*, is based in part on the anticipated results of the EIA study of frequency congestion (see above item). "EIA, which is working with all possible speed," Mr. Lee said, "tells me we can expect to have the results of the study in our hands shortly after the Commission's August recess.

"Our immediate goal," he stressed, "is to determine what we have to work with in the way of available assignments under our present mobile r allocations and to match this aga the present unfilled and future requ ments of radio users."

The non-broadcast users of ra "including the common carriers," said, "need a transmission line to Commissioners," and the projected g ernment-industry committee would p vide it. "The problem," Commissio Lee stated, "seems to be that, un present conditions, we are party-lin the mobile radio users to the ex that the radio systems are becom nearly valueless in some services some areas, and our growth indicat tell us that the situation is quick worsening."

● JAPAN'S TOKAIDO LINE is a 3 mile line of standard gauge being bu between Tokyo and Osaka design to permit a maximum operating spe of 125 mph. A 23-mile section of t new double-track line was recently i spected by a party of American ra roaders, including G. M. Magee, AA director of engineering research. Fr his report to *Railway Age*, the followi abstract is taken:

Special insulated joints. About eve mile, an insulated joint is provided f each rail. (Rail between insulated join is welded.) This joint was especial designed for the Tokaido line and quite complicated and expensive. principle, it consists of four parts f each rail. The two end parts are li stock rails. The two center parts a planed from girder rail to fit at one en against the stock rails to provide f expansion movement. At the other en they are bent and planed, insulation placed between them and they a bolted together to form a rigid insulat running surface. The theory is that t expansion joints at each end will pr vent any tension or compression forc from being exerted at the insulat joint. The insulated joints in the t rails are placed directly opposite ea other, but made right and left-han The whole section is over 40 ft lo and is supported on treated wood ti with tie plates and bolted-clip faste ings.

Signaling, communications. While w were waiting for the train to cross ov for the return trip, we had an o portunity to observe one of the aut matic train control devices located the center line of track. This was a n row, shallow conduit about 150 ft lo that housed a long track loop coil f transmitting signals to and from t train.

The principle objectives that ha been met provide for continuous c signals with no wayside signals; pra tically automatic control of the tra

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Digger-derrick digs pole holes in 3-4 minutes.

Bessemer & Lake Erie is now using a Pitman Mfg. Co. digger-derrick, known as a Polecat, for replacing 300 line poles a year. The unit is operated by a signal department line gang, responsible for pole line maintenance along the road's right-of-way.

With a torque of 3,000 ft-lb, the Polecat can dig holes in 3-4 minutes within a 22-ft radius of the 4-wheel drive truck.

In addition to maintenance work, the Polecat has been used on new line construction. Recently completed were four miles of new pole line. A bucket, which can be attached to the end of the boom, speeds up the job of stringing line wire. It can reach to a height of 30 ft, and can be controlled by the man in the bucket or by levers near the cab of the truck. Use of the Polecat eliminates pole climbing and provides safer conditions for setting poles, reports a B&LE spokesman.

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speed by signals received from the central control panel; a signal device, set by the motorman to show the train number, which also automatically shows the block the train is in on the indication panel at the control center; and an automatic route-setting device which normally will program the course and scheduled line for the class of train involved.

Manual operation can be taken over by the motorman or dispatcher if an emergency arises or conditions require, but normally the scheduling and control of the train will be fully automatic from the control center. If the automatic train control device goes out of order, a telephone block system is to substitute for it.

For communication, a train-radio system is used, supplemented by a wired telecommunication route. For radio communication, the large number and the length of tunnels offered a problem. This was met by installing a radio-telephone booster at the portals of the tunnels and laying a two-parallel-wire-type cable in the tunnels with transistorized amplifiers at intervals of 1,500 ft.

▸ MICROWAVE GROWTH in the petroleum industry has been greatly influenced by the Telpak tariff, which is more than competitive on economic factors alone, stated C. H. Burgess, Sun Oil Co., at a recent American Petroleum Institute's Central Committee on Communication Facilities meeting. According to *Telecommunications Reports*, Mr. Burgess said, "we urgently need FCC rules that will allow sharing with other services within the industrial services. To be fully competitive, this should ultimately even include sharing with the railroads as is now possible under Telpak."

▸ PRIVATE LINE services and channel usage changes became effective August 5, according to *Telecommunications Reports*. The changes are intended to clarify and make more specific the previous general regulations. They provide that private line services may be used only for one or more of the following purposes: transmission of communications relating directly to the customer's business; simultaneous transmission of communications related to matters of common interest by the customer and authorized users, when those connected are all in the same general line of business; communications relating directly to the business of a subsidiary where the customer holds

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50% or more of the voting stock; and official U.S. government business.

● RAILWAY EXPOSITION: Latest additions to the list of exhibitors to the American Railway Progress Exposition, October 9-16 to be held at Chicago's McCormick Place include Anaconda Wire & Cable Co., Okonite Co., Sylvania Electronic Systems and Transcontrol Corp., which have particular interest for signaling and communications men. (See RSC June 1963, page 48.)

● RATES FOR PRIVATE LINE services filed with the FCC as a result of the final decision by the Commission in the case may become effective Oct. 1. The following is abstracted from *Telecommunications Reports:*

When the FCC announced the final decision in the private line case, it estimated that—based on the hearing record—the Bell System would lose $1,034,000 a year in telephone grade service revenues but pick up $3,190,000 annually in telegraph grade receipts, and that Western Union would gain $822,000 in annual revenues. The carriers have disagreed and have concluded that the effect of the rate schedules on them will be actual reductions in revenues, based on more current usage. They asked the FCC for reconsideration, but were turned down.

In filings to the Commission, the carriers made a variety of adjustments in their switching system rates, the principal area of authorized rather than prescribed changes, intended to produce revenue totals allowed by the Commission. The FCC had ruled that the Bell companies could obtain $893,000 in added charges from their 81-type systems, and that Western Union could gain a total of $84,000 from its plan 51, 54 and 111 systems.

The FCC's authorization of a 1% boost in rates for interexchange telephone channels in the final decision over the initial decision, to allow for minor adjustments in rate base items, was taken advantage of. In permitting a $2.02 rate per month per mile for the first 250 miles, $1.717 for the next 250 miles, and $1.616 thereafter in the final decision, the FCC also authorized the carriers to round them down to the nearest multiple of five cents.

New telegraph grade interexchange channel rates are $1.10 per mile per month for the first 250 miles, 55¢ for the next 250 miles, 44¢ for the next 500 miles, and 38.5¢ for each additional mile over 1,000.

Also under the intercity chan heading, the Commission prescribed channel termination charge of $12. both for telephone and telegraph gra services. For telegraph local chann the monthly rate is $6.70, with charge for extensions to local chann in the same building, and $3.35 for tensions between different buildin Most station equipment rentals, in instances where the Bell System co panies and Western Union provide same or substantially similar equi ment, were prescribed by the FCC the private line initial decision (*Te communications Reports,* July 17, 196 and not changed since that time. Su rates may take effect Oct. 1.

Unaffected at the moment, by a large, are data transmission rates, wh were the subject of a separate FC inquiry. The Commission has not issu an initial decision in that case but ne with the bulk of the private line c out of the way and various precede established to the Commission's sa faction, if not the carriers', an ini ruling in the data case may be for coming in the relatively near future.

AT&T has announced that where th associated companies provide short ha services of 25 miles or less under the own tariffs, existing interexchange cha nel and channel terminal rates for voic grade services will continue to apply.

One result of the recent filings in th private line case will be the elimina tion by the carriers of their multipl channel tariff offerings, which starte the whole case seven years ago.

● SERVO vs. GE: Hotbox detecto patent infringement suit was decide in U.S. District Court in Roanoke, Va in favor of Servo Corp. of Americ (RSC January, 1963, page 32.) A judg ment was entered against General Ele tric Co. prohibiting further infringeme of Servo's basic hotbox detector pate No. 2,880,309. (This Servo patent d scribed scanner viewing upward an toed in to look at the trailing edge journal boxes.) Servo's automatic alar patent No. 2,963,575 was held to b non-infringed. Servo is entitled to r cover actual damages upon a prop accounting to be made and determine It is understood that GE will appe the decision.

● ICC order concerning operation track motor cars (RSC June 1963, 36) has been postponed until furth order of the Commission. At the reque of the AAR and the Short Line ra roads, a pre-hearing conference is to held Aug. 28 at the ICC in Washin ton, 9:30 am, before Examiner Hen J. Vinskey. Case is about motor c safety regulations.

TELPAK tariff amendment to be ctive Aug. 21 covers a new type channel terminal, according to *Tele-mmunications Reports*. The new C3 accommodate transmission of fac-ile signals at a rate of up to 0,000 bits per sec and includes termi-tions for four control channels of typewriter grade for coordination rposes. The tariff amendment was d with the FCC by the Amercian lephone & Telegraph Co.

MISSOURI PACIFIC will extend C between Ellendale and Kirkwood, o. and Aldine and Spring, Tex., and odify signals and eliminate an inter-cking at Kirkwood at a cost of $229,-0; install 133 miles of CTC between eQuincy and Anchorage, La., with ntrols at Houston, Tex.; and respace nals between Little Rock and Tex-kana, Ark., to allow increased freight in speeds, at an estimated cost of 9,300.

SANTA FE has received ICC ap-oval to install a traffic control system one main track between Newton d Hutchinson, Kan., 35 miles. Traffic ntrol will replace existing automatic ck signals on two main tracks.

U.S. STEEL has ordered radio re-te control equipment from Union itch & Signal division of WABCO r use on a 20-ton diesel-hydraulic itcher at the Ben Fairless Works in irless Hills, Pa. The operator will ntrol the locomotive by means of a rtable radio transmitter.

Railroad Personnel

ALASKA. **J. R. Nichols** has been pointed assistant chief communica-ns officer succeeding **W. G. Benston.**

ATLANTIC COAST LINE. **E. S. oler** has been appointed assistant pervisor communications with head-arters at Florence, S.C.

CANADIAN NATIONAL. **W. J. irhead,** signal supervisor, Edmonton, a. has been appointed regional signal pector there.

CANADIAN PACIFIC. **Stanley nuez,** signal inspector, Toronto, milton & Buffalo at Hamilton, Ont. been appointed engineering as-ant in the signal department at onto. Mr. Gienuez started work on TH&B in December 1947 as a al helper, and advanced through

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various positions becoming signal inspector in April 1956.

● TORONTO, HAMILTON & BUFFALO. **Daniel H. Nolan,** signal maintainer, Smithville, Ont. has been appointed signal inspector at Hamilton, Ont., succeeding **Stanley Gienuez,** who resigned. Mr. Nolan began his signal career with the TH&B in August 1949 as a signal helper, and two years later he was promoted to assistant signal maintainer. In 1952 he was appointed signal maintainer.

Supply Trade News

● TOWER COMMUNICATIONS CO. **Kenneth R. Arch** has been promoted to manager of the engineering department at Sioux City, Ia. A native of Council Bluffs, Ia., Mr. Arch received a BSCE degree from the University of Iowa in 1943. Prior to joining Tower Communications in 1962 as chief of the estimating group, Mr. Arch was employed by Aerojet General Corp.

● JOHNSON RUBBER CO. appointed Mannix International, Inc. as its railroad products (rubber insulated rail joints) representative in the Chicago, Ill., Minneapolis-St. Paul, Minn. area.

Stanley Gienuez

Daniel H. Nolan

Theodore B. Thompson

Kenneth R. Arch

● HOLAN DIV. Ohio Brass Co. recently opened a new sales and service office in Arlington, Tex. to serve Texas, New Mexico, Arkansas, Louisiana and Oklahoma. The 5,000 sq ft building also has warehouse facilities for Holan products. At Allentown, Pa., a 15,000 sq ft manufacturing facility and sales and service headquarters is under construction to serve eastern customers.

● GENERAL RAILWAY SIGNAL CO. appointed **Arthur Jensen** an assistant western manager. In addition to serving the railway sales field, Mr. Jensen will serve the GRS vehicle traffic control systems and equipment in the western area. Mr. Jensen began his railway career with the Rock Island signal department in 1929, and a year later joined the signal department of the Elgin, Joliet & Eastern. In 1951, he was promoted to signal supervisor, EJ&E, the position he held at the time

James H. Stelloh

Arthur Jensen

of his appointed as a sales engineer with GRS in October, 1954.

● FEMCO, INC. appointed **Theodore B. Thompson,** vice-president marketing and engineering divisions. A native of Carbondale, Ill., Mr. Thompson was graduated from Southern Illinois university in 1931 and obtained an MS degree at the University of Illinois in 1938. He completed an additional year of study at UI in 1940 in the School of Electrical Engineering. He began his railway career with the Illinois Central in 1928, working summer months, and full time in 1939. After serving as chief operator of rail detector cars, he entered the signal department as special engineer. Later he was promoted to assistant signal engineer, and became signal engineer in 1953. Three years later, he joined Union Switch & Signal division of WABCO as Pittsburgh district manager. He advanced to Chicago district manager, New York district manager, and was appointed director of engineering in 1958. A year later he was appointed vice-president engineering, the position he held prior to joining Femco.

● UNION SWITCH & SIGNAL division of WABCO appointed **James H. Stelloh** as manager, Houston, Tex. district office. Mr. Stelloh is a graduate of St. Louis university with a BS degree in geophysical engineering and a master's degree in business administration. After sales work with Minneapolis-Honeywell in St. Louis, he joined US&S as a sales engineer concerned with systems control equipment for pipelines. In May 1962, he was appointed product manager of systems.

This Was News 50 and 25 Years Ago

The Signal Engineer, August 1913. Illinois Central installs lower quadrant automatic block signals on 10 miles of double track between Chicago and Parkway, Ill. Five interlocking plants are included in the project, in which AC signaling was installed.—Maine Central has automatic block signaling in service on 435 miles of single track and 76 miles of double track. There are a total of 996 automatic signals, 52 interlocked semaphore switch signals and 12 interlocked semaphore drawbridge signals on the road. All the automatic signals are normal clear two-arm, home and distant, style B electric semaphores indicating in the lower right-hand quadrant with bottom-post mechanisms.

Railway Signaling, August 1938. Belt Railway of Chicago makes extensive reconstruction and additions to its Clearing, Ill. yard. Changes include revision of the layout and grades of the classification yard to permit the installation of electropneumatic retarders and the makeup of longer trains, the reduction in use of receiving and departure yards, the moving of 1,300 ft of icing platform to the eastward receiving tracks, the installation of a loudspeaker system for yard communication, the use of printing telegraph for handling switch lists, and complete floodlighting of the yards. Pennsylvania, as part of its program of extending its electrification from Philadelphia to Harrisburg, Pa., has modernized its communications system in the territory. All communications circuits are placed in aerial tape armoured cable, maintained under gas pressure on 11,000 new poles. The open wire lines were removed. The circuits carried by the cable include dispatcher, message and block, wreck patrol and gas alarm, local PBX and through trunks and Morse and printing metallic telegraph.—Missouri Pacific signal performance during 1937 showed that a train travels an average of 134,000 blocks before encountering a signal displaying stop due to improper signal performance. The record covers the operation of 3,708 signals. RSC