

NEWS BRIEFS

● SOUTHERN PACIFIC has contracted with Ampex Corp., for a Videofile system, to be delivered in 1967, to speed filing and retrieval of freight waybills and related documents. The system will have a total capacity of more than 20 million documents and will occupy 1,000 sq ft of floor space. More than 400,000 new waybills, abstracts and corrections will be added to the file each month. Requests for information contained in the file are expected to average 56,000 per month.

Thirty six 8½" by 11" documents may be recorded in 1 ft of 2" wide video tape. File entries may be located and viewed on TV screens or reproduced as full-sized facsimile copies in less than 2 min. Information may be added or removed electronically at 6 viewing/retrieving stations simultaneously. Documents may be added to existing tape files wherever desired. They may also be erased, relocated or replaced electronically within the file without disturbing or altering the file itself.

● DIEBOLD RESEARCH PROGRAM reports on a study of the application of new technology to railroad freight operations. According to the report, system-wide freight operations will be controlled at a central headquarters by 1975.

Combined computer-based communications network will depend upon recent developments in data input devices. Shippers will order freight cars through typing stations linked to their computers, which in turn, will relay orders to the railroad's central headquarters. Inquiries on cars will also be direct to the railroad's operating center compared to today's method of calling local agents who initiate searches for empty and loaded cars. By providing centralized car inventory and distribution, shippers can expect at least a 25% improvement in the speed of receiving an empty car.

Other features of the operating system proposed by the Diebold Research Program include car movement reported by automatic car identification techniques and computer processed car switching instructions and car classification. Scheduling of crews, power units, train departures and arrivals will be processed centrally with greater use of operation research techniques. Freight billing, purchasing and stores, payment to the suppliers, rate contentions, and reports to regulating bodies will be on a computer-to-computer basis.

Waybills will be eliminated by the new data input-output devices. Shippers will transmit bill of lading data by facsimile and car location

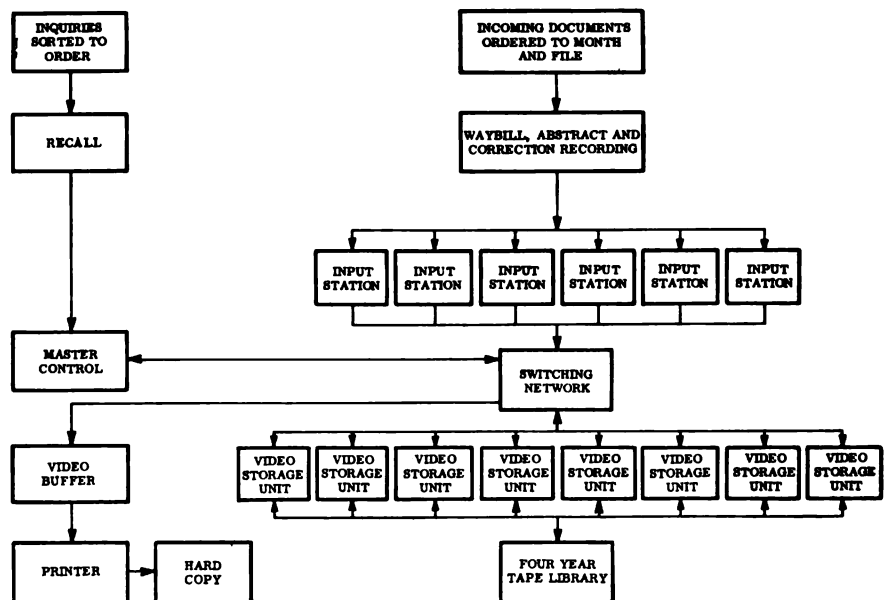
will be transmitted by automatic car identification. Orders to terminal and switch yards, locomotives and repair yards will be transmitted over computer-controlled communications network. Control information will be printed at terminals, displayed on visual devices or relayed by radio.

Such a company-wide operating and central control system would cost about \$30 million (to be amortized over 10 years) in the 1970s. According to the Deibold report, a large railroad company could reduce operating expenses by \$75 million each year, mostly from savings in labor costs.

● BOSTON & MAINE has ordered type K2 CTC equipment from General Railway Signal Co., to expand an existing CTC system between Dover East and Dover West and Exeter, N.H.

● CHICAGO, BURLINGTON & QUINCY has ordered type K CTC equipment from General Railway Signal Co., for the control of three locations at Trevino, Wis.

● FCC in a notice of proposed rule making suggests a substantial lifting of present restrictions on sharing of private microwave systems to permit a wide variety of joint or shared installations and operation of private systems now barred by the rules. In its announcement, the FCC said it "proposes that the present
(Please turn to page 27)



Southern Pacific will have 6 viewing-retrieving stations in its document file system to be delivered in 1967.

(Continued from page 10)

ban on sharing of private microwave facilities be relaxed so as to permit all persons eligible in the same radio service to share a microwave radio system, and in addition, to permit cross-service sharing by commonly owned companies, public safety organizations, right-of-way companies, and companies whose rates are regulated by a governmental entity.

"This would permit, for example, a subsidiary in the special industrial radio service to share a system with its parent in the petroleum radio service, or a police department to share a system with a power company, or a railroad to share with a trucking company.

"This would enable commonly owned companies to operate one system, where the communication requirements can be met by one system, even though they may not all fit the eligibility criteria of a single radio service."

According to *Telecommunications Reports*, the FCC was understood to have taken the position that the present rules lead to unnecessary duplication or paralleling of private microwave systems, and that the full utilization of private microwave is currently inhibited by the cost it mentioned in the 1959 discussion of the subject. In its 1959 private microwave decision, the Commission said that "although such an arrangement may make it economically feasible for smaller firms and organizations to utilize microwave for their operations, it must be observed that such shared usage is inconsistent with one of the principal justifications urged by private users for their own systems, viz., exclusive control of their own facilities because of special communications problems."

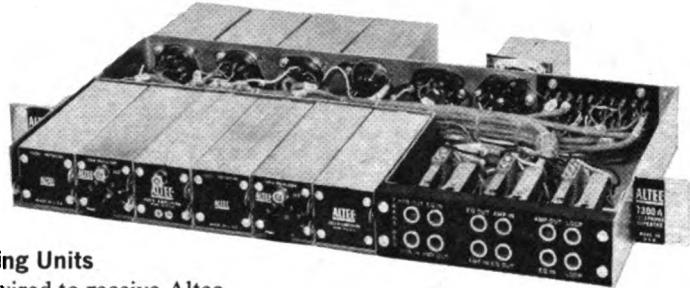
● **NORTHERN PACIFIC** has received ICC approval to install a traffic control system on single main track between Kootenai, Ida., and Tuscor, Mont., 55 miles.

● **READING** has begun construction of the electrification of its Fox Chase branch in the Philadelphia area. As part of the 11 kv electric
(Please turn to page 28)

SOUND WAY TO RUN A RAILROAD WITH ALTEC'S COMPLETE LINE OF VF TELEPHONE PRODUCTS

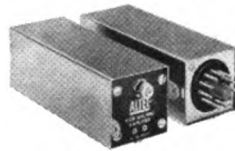
Altec offers railroad communications engineers a complete line of VF transmission products that have been proved through the years by major telephone companies. Each piece of equipment represents the most advanced features available, such as all-transistor circuitry, small size, low heat, and simple installation. Quick delivery from stock eliminates waiting and back-ordering.

TELEPHONE REPEATER COMPONENTS



Terminating Units

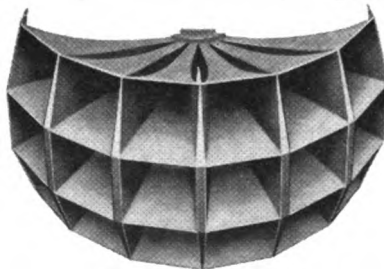
are fully wired to receive Altec plug-in components for quick establishment of repeated VF channels. 2-wire to 2-wire, 4-wire intermediate, or 2-wire to 4-wire termination. Six models.



Plug-in Repeater Amplifiers are all-transistor, do not require 130 v power supply. Only 1 5/8" x 1 1/16" x 5 3/16". ■ **Plug-in Transformers** include Hybrid Transformers with high trans-hybrid loss and Line Transformers with impedance matching drop side

to telephone. ■ **Plug-in Networks** include compromise and precision networks. ■ **Plug-in Line Equalizers** compensate for frequency-amplitude characteristics in cables or lines. ■ **Plug-in Auxiliary Devices** include pad adapters, pad control relays, loop-back relays, idle-circuit disabler, and filters. ■ **Plug-in Attenuators** introduce fixed loss in 4-wire paths. ■ **Power Supplies** energize up to 100 repeater amplifiers. ■ **Mounting Panels & Assemblies** mount amplifiers, networks, equalizers, or repeaters.

OTHER RAILROAD SOUND EQUIPMENT



You'll find Altec sound systems and equipment the reliable answer to railroad communications needs: intertrain, on-train, train-to-yard, platform, shop, or station. All-transistor amplifiers give you maintenance-free reliability. Altec's unique SEQR® system further insures you against power amplifier failure.

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For specific engineering details and information about how these reliable Altec products can serve your railroad communications network, call your authorized Altec Sound Contractor. He's listed in the Yellow Pages under Sound Systems; or write Dept. RS-11.



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(Continued from page 27)

fication, the double-track line, about 6 miles long, will have CTC on both main tracks, controlled from Wayne Jct. tower. Switch heaters will be provided that will be remotely controlled from this tower.

● **NEW YORK CENTRAL** has received ICC approval to replace a mechanical interlocking with an automatic plant at a single-track crossing of two of its lines at Schneider, Ind.

● **NORFOLK & WESTERN** has ordered two hotbox detectors from General Railway Signal Co.

● **MONTREAL'S Expo Express** trains running at the 1967 World Exhibition will operate automatically after an attendant closes the doors and pushes a start button. Eight 6-car trains will be equipped with signal and control equipment developed by Union Switch & Signal division of WABCO. Hawker Siddeley Canada, Ltd., the prime contractor for the Expo Express trains, ordered the ATO equipment from Uniswitch Corp., a WABCO subsidiary.

The basic controls will include a cab signal and speed control system without wayside signals or trip stops. Because this system will use low voltage audio frequency track circuits, it will not require insulated joints except in terminal switching areas. The eight trains will operate over a double-track line, about 3.5 miles long with stub-end terminals at Mackay Pier in Montreal Harbor and at the Fair site on an island in the St. Lawrence river.

The four basic components of the control system include: (1) a wayside block system to provide speed-distance control between trains and terminals; (2) train-carried equipment to receive and indicate control intelligence transmitted through the rails by the wayside; (3) a voice communication system and visual signal and speed indicator panel located within an attendant's cab; and (4) a velocity control programmer that will augment the basic signal and control apparatus to provide automatic operation. The velocity control programmer, a servo-mech-

anism, will automatically initiate applications of propulsion power and braking as they are called for by the cab signal and speed control system and the wayside controls.

After the attendant has pressed the start button, the control system will then automatically conduct the train to its next station, maintaining correct speeds and distances, and bringing it to a smooth, precise stop at a preset location. The automatic controls will be capable of dispatching trains at 150 second intervals. Automatic control of interlockings at the stub-end terminals will enable approaching trains to have their station berths selected and switches positioned for movement into and out of the terminal. This will allow maximum passenger loading and unloading time.

Railroad Personnel

● **CANADIAN NATIONAL TELECOMMUNICATIONS: J. S. Grossman**, general outside plant and construction engineer, appointed assistant planning and control officer
(Please turn to page 30)

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WS BRIEFS

(continued from page 28)

Toronto. **Clarence A. Beckett**, manager of Halifax, N.S., operation, retired.

CHICAGO & NORTH WEST: **W. B. Utech** appointed sign supervisor at West Chicago, Ill., succeeding **G. L. Kasdorf**, retired.

Supply Trade News

C&D BATTERIES: **Harry S.**

Conrad, Jr., has been appointed manager of railroad sales.

● **THOMAS A. EDISON INDUSTRIES**, Primary Battery Division has formed a Canadian subsidiary for the manufacture and sales of its products. Known as the Primary Battery Division, **Thomas A. Edison Industries, McGraw-Edison (Canada) Limited**, the new company will have offices at 32 Front Street West, Toronto, Ont., and manufacturing facilities at Scarborough, Ont.



Harry J. Young
Copperweld Steel



William A. Edwards
Kerite Company

● **COPPERSWELD STEEL CO.:** **Harry J. Young** will represent the wire and cable division in New Jersey and southeastern New York. He will be headquartered in New York City. Mr. Young is a mechanical engineering graduate from the U.S. Merchant Marine Academy. Prior to joining Copperweld he was a sales engineer for General Electric Co.

● **GENERAL RAILWAY SIGNAL CO.:** **Thomas H. Evans** has been appointed sales engineer in the Chicago office. Prior to joining GRS, Mr. Evans was assistant signal supervisor, Louisville & Nashville at Boyles yard, Birmingham, Ala.

● **ITT TELECOMMUNICATIONS:** **Jack H. Wilks** has been appointed manager eastern region. With ITT since 1961, Mr. Wilks had been transmission engineer and regional engineer.

● **THE KERITE COMPANY:** **William A. Edwards**, railroad sales manager, has been elected a vice-president of the company and has been transferred to the Chicago office. Mr. Edwards joined Kerite in 1946 as a sales representative. In 1954, he was appointed assistant to the vice-president of sales and two years later was promoted to eastern railroad sales manager. In 1963, Mr. Edwards was appointed railroad sales manager.

● **LENKURT ELECTRIC CO., INC.:** **James E. Lingo**, formerly a field engineer for Westinghouse Electric Corp., has joined Lenkurt as a service engineer in the San Carlos, Calif. office.

● **MARQUARDT CORP.** has recently reorganized its industrial
(Please turn to page 36)

Civil Engineers Project Engineers Circuit Designers/Checkers For Railway Rapid Transit Industrial

Union Switch & Signal Division of Westinghouse Air Brake Company has immediate openings for experienced Civil Engineers, Project Engineers, and Circuit Designers/Checkers. Engineering degree preferred but not a requirement if equivalent experience can be shown. Salary commensurate with experience and capability. Excellent growth opportunity.

Send resume to, or telephone collect:

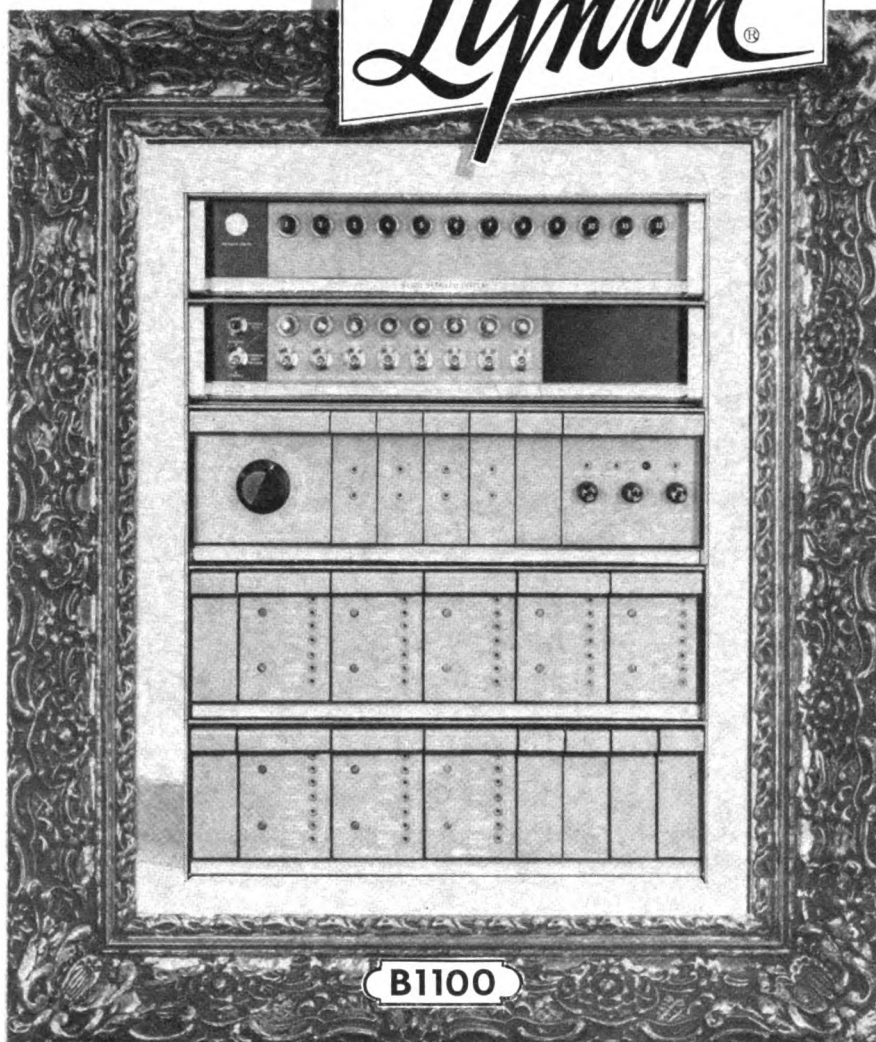
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NEWS BRIEFS

(Continued from page 30)

products department and renamed it Railroad Transportation Products. E. R. Zebe, manager marketing and sales of the former department, has been appointed manager railroad transportation products, and will continue to have marketing and sales responsibilities.

● **MOTOROLA INC.:** Dr. Daniel E. Noble, group executive vice-president, has been elected vice-chairman of the board of directors and designated as the corporation's chief technical officer. Dr. Noble will continue to direct operations of the communications, military electronics, semiconductor products and control systems divisions.

● **PHILCO CORP.:** Lloyd R. Morse, has been appointed product manager of transmission measurement instrumentation at the Sierra Operations in Menlo Park, Calif.

● **SERVO CORP. OF AMERICA:** Charles J. Wohl has joined the engineering staff of the railroad products division. A graduate of New York University with a bachelor of electrical engineering degree, Mr. Wohl served with RCA's defense electronic products division for 8 years prior to joining Servo. Earlier he was associated with Reeves Instrument Co., and Link Radio Corp.

Richard F. Wehrin has been appointed vice-president and manager of European operations. He will have headquarters in Geneva, Switzerland and will direct Servo operations in Europe, the Near East and the Middle East. He was formerly director of European development for U.S. Time Corp.

● STROMBERG-CARLSON



Eugene R. Zebe
Marquardt Corp.



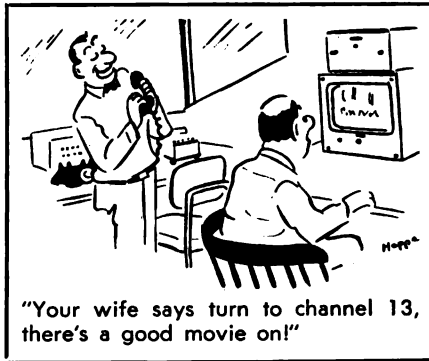
Charles J. Wohl
Servo Corp.

Salesmen Wanted

Leading signal and communications supplier seeks men with railroad experience for the following positions: (1) salesman for communications equipment; (2) salesman for signal equipment; and (3) assistant signal engineer. All men would be headquartered at Chicago. Please reply giving age, experience and salary desired. Box 945, Railway Signaling & Communications, 14 E. Jackson Blvd., Chicago, Ill. 60604.

CORP.: Charles F. Cheney has been appointed director of advertising-telecommunications. Mr. Cheney was formerly manager of marketing research and director of planning for S-C.

● **WESTERN RAILROAD SUPPLY CO.:** James A. Parkinson, retired general superintendent communications and signals, Santa Fe, has been appointed special representative and technical consultant in communications and signaling. Mr. Parkinson retired Apr. 30, this year (RS&C May, 1965, page 37).



This was News 50 and 25 Years Ago

The Signal Engineer, November 1915. South Australian Railways installs electric interlockings at Adelaide, passenger terminal. The installations are unique for Australian railways in that they are using all-electric interlocking, speed signaling, the 3-position upper quadrant semaphore signal with yellow light for caution and permissive automatic signals.—Atlantic Coast Line completes automatic block signaling on 69¼ miles of double track and 5¼ miles of single track between Richmond, Va., and Pleasant Hill, N.C.—Western Pacific installs cab signal and automatic stop system on five miles of single track mainline and 20 locomotives operating near Oroville, Calif. With the exception of small light signals, one at each automatic stop location, called markers, which are for the information of enginemen who have been stopped by the automatic operation of the system, no roadside signals are used, the enginemen being guided solely by the cab signals, which show red,

yellow and green lights, the ordinary stop, caution and proceed indications.

Railway Signaling, November, 1940. Michigan Central installs entrance-exit type interlocking at east end of tunnels under the Detroit River, in Windsor, Ont. Also included in the modernization project is the installation of a miniature lever all-relay interlocking controlling movements into and out of a yard where steam locomotives are replaced by electric locomotives to haul trains through the tunnels under the river.—Hudson & Manhattan installs electro-pneumatic interlocking at revised 3-track stub-end terminal at 33rd street in Manhattan, New York City.—Southern Pacific washes insulators on pole lines with high-pressure water to remove dust. This washing minimizes severe interference, such as current leakage and "cross-fire" between wires on open pole lines due to the effects of fog, combined with dust on insulators and crossarms. **RS&C**



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