



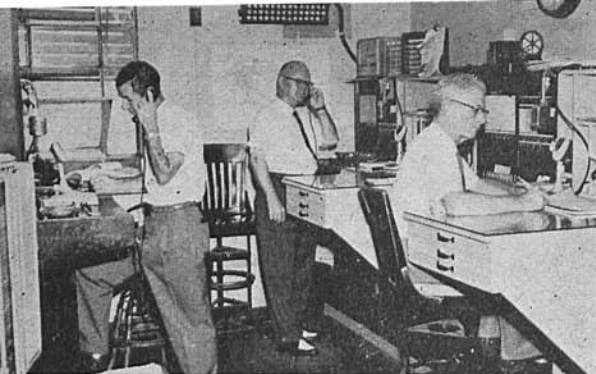
Emblem

JULY, 1959



Cover Story, p. 15

ELECTRICAL DEPARTMENT (A picture story):
New Radio System — Moving Overhead Lines —
Our Substations — Pigeon Trouble!



RADIO DISPATCHERS at Sentous giving instructions to Supervisors over new transmitting equipment installed in June and July. From left are Walter E. Lohman, W. H. Morgan, and Jack Redding, three of seven regular and four extra Dispatchers under Chief Dispatcher C. E. Carlson. All three boards handle the entire MTA system.

“Juice”

Special Work Like Installing New Two-Way Radios, Altering Overhead for 7th & Boyle Rail Detour, Wiring New Construction at South Park Shops, Plus Operation and Maintenance of Power System, Keeps 100 Electrical Department Employees Hopping

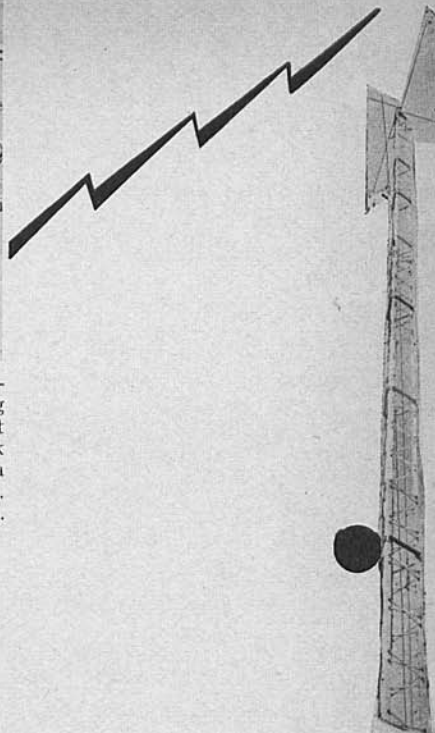
ON JUNE 25, Radio Station KMA-454, by authority of the Federal Communications Commission, took to the air from MTA's dispatching office at Division 20, 12th Place and Sentous Sts., broadcasting on a frequency of 43.78 megacycles.

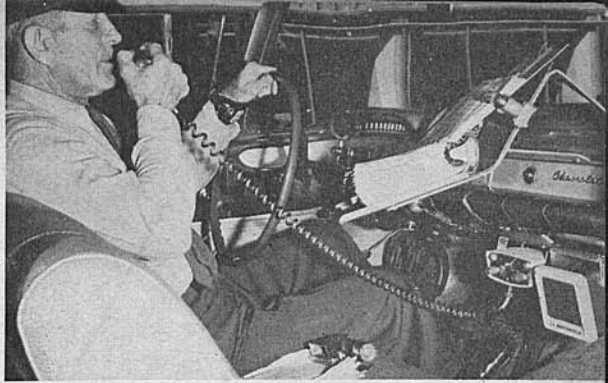
On the same day, at 12:01 p.m., Radio Station KMF-206, the old dispatching station in the Pacific Electric Building, went off the air for good.

New two-way radios, tuned to the new frequency, were installed

in 77 MTA automobiles and trucks.

Completely new transmitting equipment was also installed. This included three new dispatchers' boards at Sentous, each covering the entire system; a new transmitter (KMA-454) on Mt. Verdugo, Glendale, which receives Dispatchers' calls by telephone line and rebroadcasts them to the mobile units; and a new transmitter on Mt. Modjeska, 20 miles east of Santa Ana, with the call letters KMF-206, the same as the discontinued station. The Mt.





SUPERVISOR Stanley J. Whitelock relays traffic information to Dispatcher over new two-way radio in his car. "We don't get the interference from other radios we used to get," he says. "Also there's less boom because of more treble, less bass." A total of 77 new radios have been installed in cars and trucks of various departments.

Modjeska transmitter, to be placed in operation in late July, receives Dispatchers' calls by microwave transmission at 6,000 megacycles from a beamed transmitter atop the Transit Authority Building at 1060 S. Broadway, and rebroadcasts them at 43.78 megacycles. Dispatchers' calls reach the Broadway tower by wire.

The Dispatcher may broadcast from either KMA-454 or KMF-206 by the flick of a switch, but may not use both at the same time. Broadcasts from mobile units are received at both Mt. Verdugo and Mt. Modjeska and transmitted to the Dispatcher by telephone line from the former, or by microwave to the Broadway tower and thence by wire from the latter. The Dispatcher may receive from whichever station gives the better signals.

Still further to improve reception by the Dispatcher, supplementary receivers connected by wire to the Dispatcher's office have been placed at various points: Palm Loop, Mt. Washing-

ton, Division 20, Division 2, and 1060 S. Broadway. They pick up and intensify calls from mobile units which move into their area.

Thus ended the old, inconvenient dual system of radio dispatching—thanks to MTA's Electrical Department.

At about the same time, progress in the construction of the Golden State Freeway required that a rail detour be constructed at 7th St. and Boyle Ave. to permit the construction of a bridge. The Electrical Department line crews set new poles, and altered the course of both the trolley wire and the high line.

A new blacksmith shop, some new pits, and other alterations at the South Park Shops required new wiring. The Electrical Department sent crews.

Then there was the regular maintenance and operation of the electrical power system, including 17 substations, transmission lines, and switching equipment. This work had to go on 24 hours a day

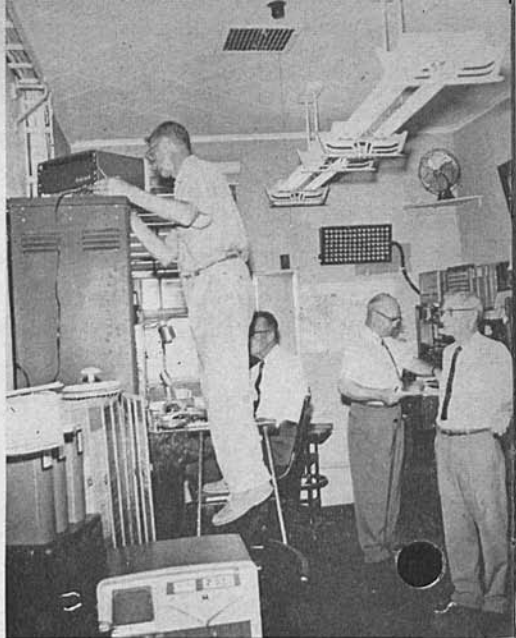
"JUICE"—

to keep the rail cars, trolley coaches, shop and office equipment and lights going.

Hear the words of the Superintendent of the Electrical Department, Leland E. Dye:

"The job of the Electrical Department is to install and maintain all MTA electrical equipment, including substations, high-voltage transmission lines, the power distribution system, trolley wire, poles, two-way radio equipment, electric track switches, the track signal system, and electrical equipment in shops and car houses. The only electrical equipment we do not maintain is that in vehicles, except for two-way radios."

Pictures on these and following pages illustrate some of the work carried on by Mr. Dye and his force of 105, including 48 in substations, 43 in overhead lines, 8 in electrical construction, a Radio Technician, and a small office force.

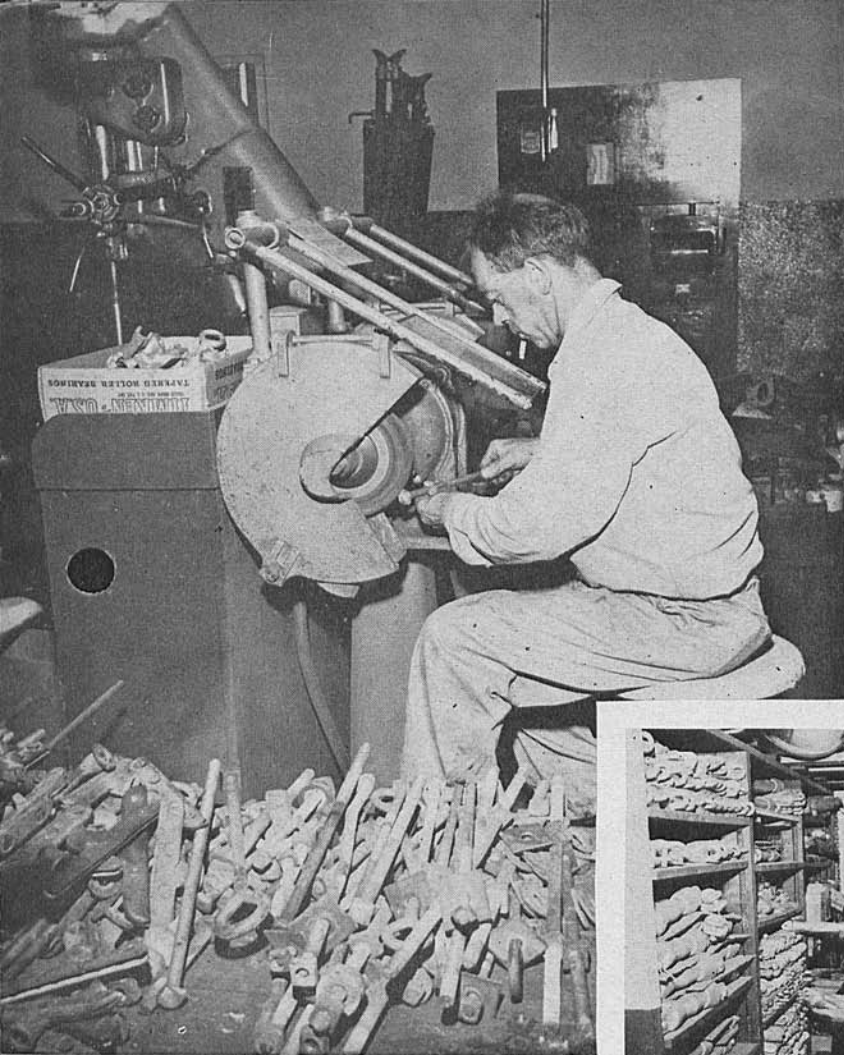


TESTING new radio installation at Dispatcher's office is D. J. Sullivan (on ladder), Electronics Technician for Electrical Department.

New Two-Way Radios

RADIO INSTALLATION— Old unit being removed from car (below); new unit being put in (right). New radio chassis is only about half the size of the old. Also replaced were antenna, microphone, speaker, wiring.





SALVAGE SAVES MONEY—Groundman Geo. "Boofus" Wessner cleans up nuts, bolts, and electrical parts by wire brushing off dirt and corrosion, and stacks rejuvenated materials neatly on shelves at 16th St., for future use.



Salvage



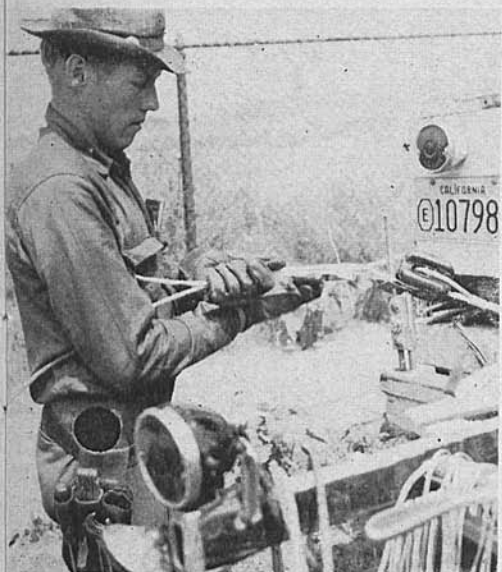
SITE of rail detour to be constructed at 7th & Boyle being inspected by Supt. of Electrical Equipment L. E. Dye, right; Supervising Line Foreman H. W. McTaggart, left; and a Pakistan visitor at MTA, Q. M. Murtaza, Deputy Secretary, Ministry of Industries, Government of Pakistan. Looking west from Boyle Ave., with 7th St. in left background.

"JUICE"—

**Rail Detour,
7th & Boyle:
Constructing
The Overhead**

LINEMAN George Wright climbs pole to drill hole (picture at right) through which to put an eye to hold guy wire that will support trolley wire. He has tools, rope, and measuring tape fastened to his belt. Driver-Groundman Lewis Hunter, acting as helper, holds other end of tape with which they will measure height to put guy wire.



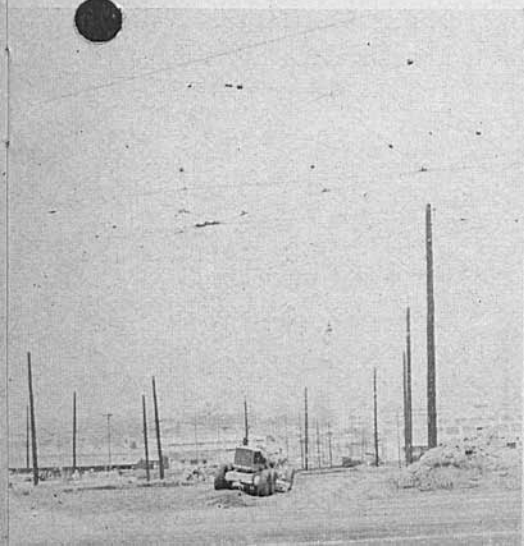


INSERTING INSULATOR between sections of guy wire is Lineman Leader Richard Jellison. This is done to protect passersby in case trolley wire should break and hit support structure.



ON TOWER TRUCK, Linemen Harold Jones, left, and Joe Carter string guy wires under 2500 lbs. tension as support for trolley wire, which is pulled into curved shape over detour at 2800 lbs.

TROLLEY WIRE for double-track detour is completed and roadscraper is leveling roadbed for rails to be put in by Way and Structures. Picture at left: looking west from Boyle Ave. Picture at right: looking northeast from 7th St. Detour is temporary.





AT POWER WINCH on truck located on 7th St. west of Boyle are Heavy Gang Foreman B. C. Hornseth, left, and Lineman Joe Planellas, threading rope over crossarms of poles on 7th.



FASTENING CABLE TO ROPE are Messrs. Hornseth and Planellas. Power winch on truck located east of Boyle will then pull rope, cable, into place.

"JUICE"—

THE GOLDEN STATE FREEWAY, now under construction, will cross over the Santa Ana Freeway as well as 7th St. near the intersection of 7th and Boyle. A bridge is therefore required at or near the intersection. Part of 7th St. must be dug up before the bridge may be built.

A section of MTA's 16,500-volt, 3-wire transmission lines was underground in Seventh St. and had to be moved. Supervising Line Foreman H. W. McTaggart and his line crew put them away out of danger on some poles. This is quite a trick, in case you've never seen it done. First, you must "thread" the big poles, some 75 feet long, through the maze of overhead already present at almost any intersection. Tall cranes and men holding guide ropes are essential, and the man at the crane must be sharp-eyed and quick to handle the controls.

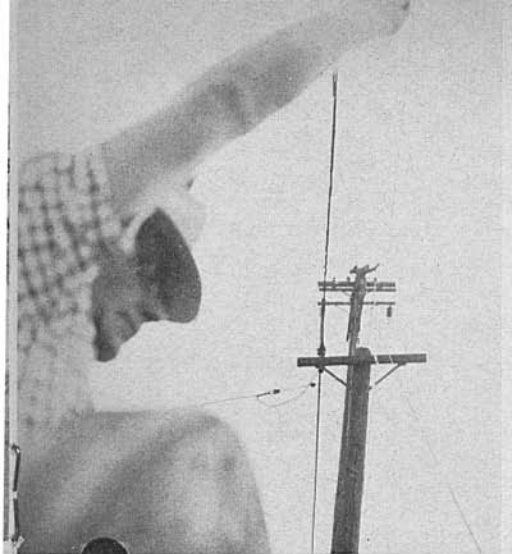
Rail Detour, 7th & Boyle:

Moving the High Line

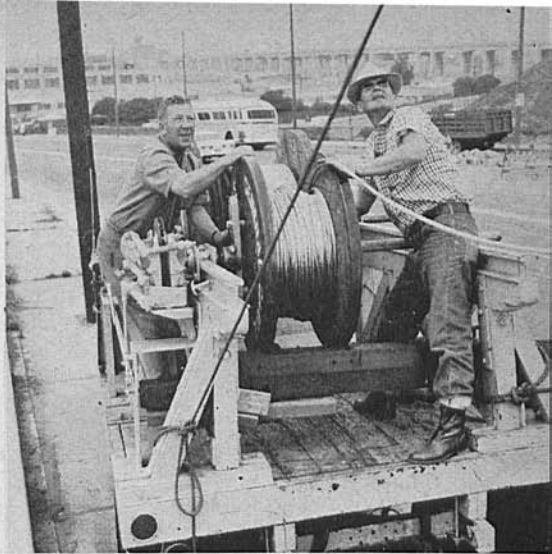
After the poles are all set, the next trick is to string three heavy ($\frac{1}{2}$ -lb. to the foot) copper cables as thick as a fat thumb along the tops of the poles. The MTA way is first to string some light cord where the cable is to go, then to haul up some heavy rope by means of the cord, and then to fasten the cable to the rope and pull on the rope with power winches while a Lineman atop each pole keeps careful watch.

His hand constantly in motion means everything's OK, but if his hand stops, everything stops until whatever was wrong is fixed.

Once the cable is pulled into place, he fastens it to the insulators on the crossarms, makes necessary electrical connections, and the job's done—in a far, far longer time than it takes to say so.

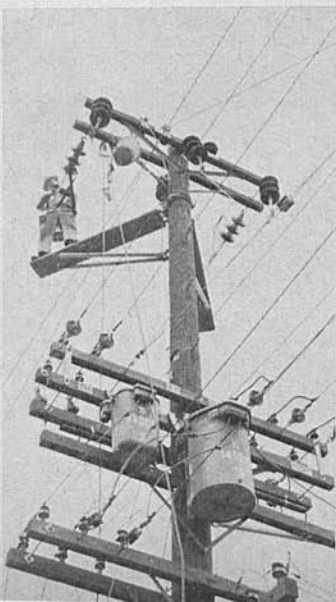
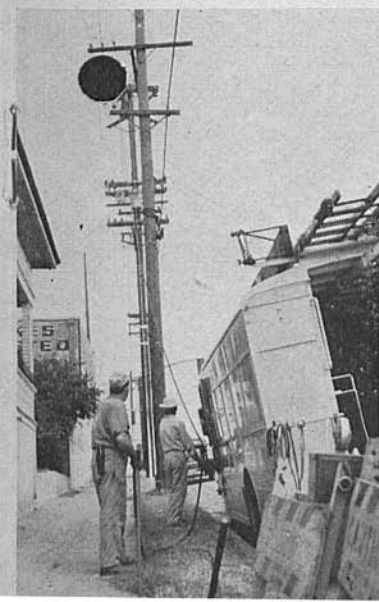


UP SHE GOES!—Cable being raised. Note Lineman on pole; he signals 'OK'.



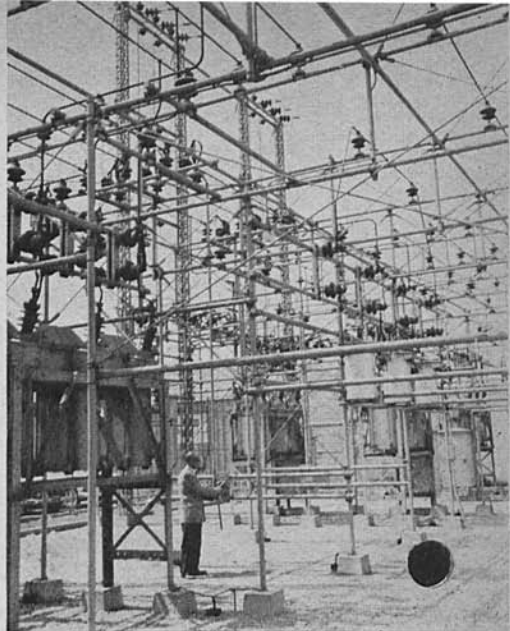
HIGH LINE CABLE—bare, stranded copper wire—being paid out from spool on truck on 7th St. west of Boyle. Messrs. McTaggart, left, and Hornseth help keep proper tension on the cable.

PULLING ROPE with cable attached are Utility Man Paul Maris, left, and Groundman George Pappas, using power winch of truck on 7th St. east of Boyle (left-hand picture). **SECURING CABLE** to insulator on pole is Lineman Al Gibson, standing on frail-looking platform 75 feet in air (center picture). **WAVING HIS ARM** up and down regularly as cable is pulled into place is Lineman Kenneth Stansbury, standing in the middle of Boyle Ave., which has been partially blocked to traffic. He is taking his cue from men waving from truck west of Boyle, and is being watched by men at truck east of Boyle. Linemen on poles are also waving. If anyone's arm stops, all operations are stopped until one who stopped waving again starts (photo at right).



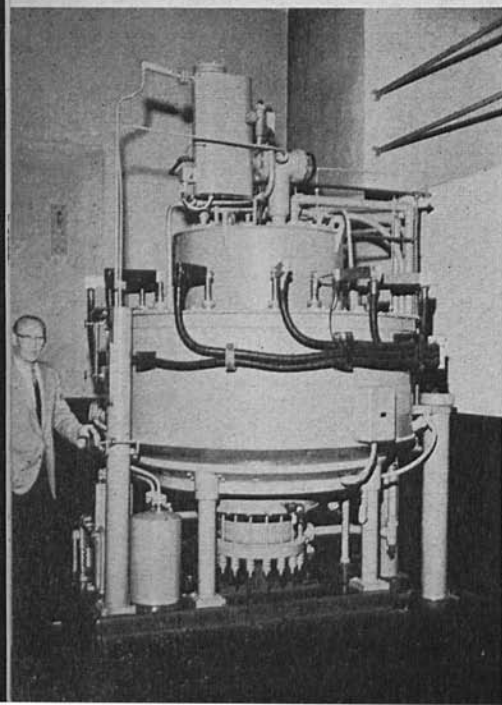


TYPICAL SUBSTATION — Slauson "Sub" (above), at Slauson and Towne Aves., with (picture at right) network of transmission lines and switches carrying voltages from 16,500 (as we buy it from the Edison Co.) down to 600 (what we use on trolley wires). Network is behind the substation.



"JUICE"—

RECTIFIER, the heart of the substation, transforms 960 volts of alternating current to 600 volts of direct current that reaches trolley wires from feeder lines. Principle of the rectifier is that current will pass in only one direction through ionized gas in a high vacuum, says E. A. Ness, Superintendent of Substations (shown standing beside rectifier).



Substations

STUDYING BLUEPRINTS of some possible changes at the Central Switching Station, 7th and Alameda, are Frank H. Markley, Supervisor of Electrical Facilities, and H. H. Copenhaver, Foreman of Substations, Southern Division. This division has seven substations—five automatics and two portables—that supply power to Watts and Long Beach rail lines.



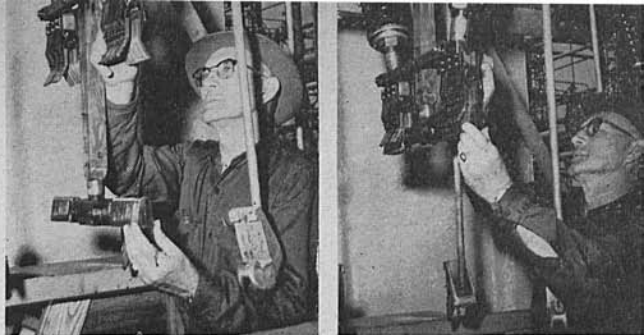


POWER SUPERVISOR M. J. Hudak, shown in the Central Power Office in the substation at 16th & San Pedro, is one of 12 such supervisors who get all calls for power troubles; to whom all Substation Operators report by telephone every hour on the hour; and who, through a system of red lights in their offices, keep an eye on high lines and rectifiers in each automatic substation. Manual substation troubles must be reported by the Substation Operator. The Power Supervisor keeps a daily log.

PIGEON TROUBLE—Driver-Groundman Lewis C. Hunter, right, shows Power Supervisor Russell Peterson how a pigeon came to roost on this 16,500-volt high line switch insulator and was roasted when he shorted the switch. The force of the voltage shattered the porcelain insulator as shown and also melted a heavy connecting cable (top). The sudden jolt of current in the high line automatically opened an oil switch (see next page), installed for just such emergencies, however, and the line was saved. But lights in the substation at 16th St. went out, and before Substation Operator Glenn McBride could find the trouble he had to get back his lights by switching to another line. Checking his station, he found a tell-tale light on his remote control board that showed the oil switch at Slauson Substation had been kicked open, indicating trouble on the connecting high line. This fact he at once reported to the Radio Dispatcher at Sentous (page 2), and to Power Supervisor Hudak. McBride then went outside and immediately found the cause of the trouble—the pigeon in the broken insulator. Had he not done so, Hudak would have sent out a patrolman (Lineman) to locate the trouble. As it was, McBride opened disconnects at the substation, Lineman James Thagard opened pole-top switches at Vernon and Hooper, and the line was out of service. The facts were reported by Hudak to Mr. McTaggart, whose crew repaired damage. A regular system of reporting every step taken to all concerned insured safety.



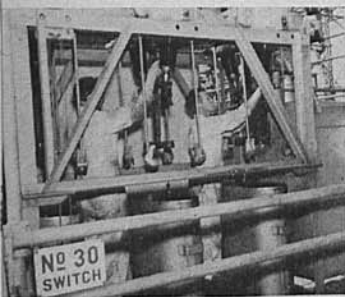
"JUICE"—



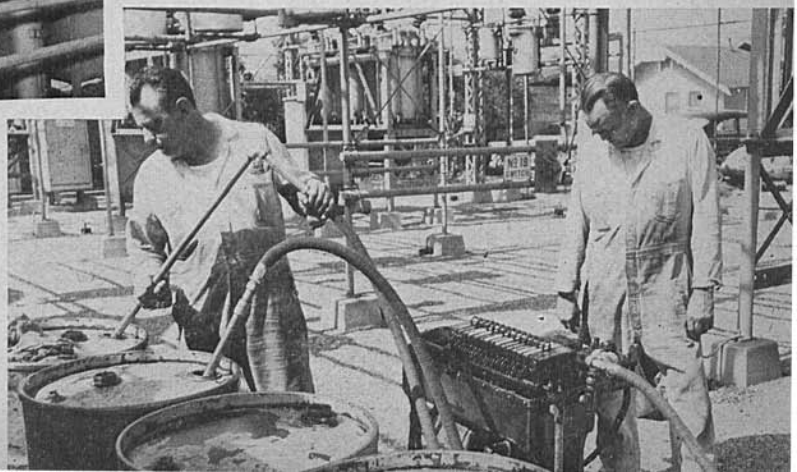
OIL SWITCH—A device for insuring the safety of lines of extremely high voltage, such as the high-line described on the previous page, the big switch is operated in an oil bath to prevent damage to its parts by the arcing of current. In emergencies, its action is automatic. Here the switch has been raised from its oil tank below (see picture at lower left) for cleaning and inspection. Leader B. G. Allen shows switch in open position, left, and closed position, right.

Cleaning an Oil Switch

CLEANING and inspecting oil switch at Slauson Substation are B. G. Fox, left, and J. W. Martin.



FILTERING OIL from each of the 50-gallon switch tanks are A. J. Jenks, left, holding pipe through which clean oil is going into barrel; and J. H. Hall, operating filter pump. Oil must be absolutely clean to be a non-conductor. It passes through 140 filter papers (at top of pump), and about two hours are needed to filter the total of 150 gallons. Dirty oil is pumped from tanks into barrels, filtered into clean barrel, pumped back in tanks. Oil switches are serviced regularly once a year—more often if lightning—or pigeons!—interrupt service.





SOUTHERN DIVISION TOWER TRUCK — Tightening trolley wire and repairing broken span at Watts Substation. On tower are A. L. Rust, Leader, at left, and Manuel Montes, Lineman. Circled are Southern Division Line Foreman T. R. ("Dave") Foyle, right, and Driver-Groundman Norse Click, getting instructions from Mr. Foyle.

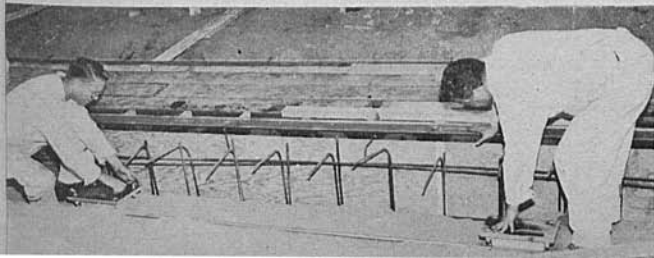
"JUICE"—

(Concluded)

KEY MAN — Walter Whiteside, Chief Clerk and Joint Pole Field Engineer, Electrical Department, does cost estimating on jobs, handles telephone matters with the telephone company, arranges for MTA use of poles owned jointly by utility companies, and manages office routines.



LAYING CONDUITS and electric light fixtures in new pits dug at South Park Shops are F. W. Webb, Leadman, left, and A. W. Ennis, Electrician. Conduits must be laid before concrete is poured into forms (seen in photo). In photo at right, P. C. Tupper, Foreman, Electrical Construction, right, checks with Mr. Webb measurements for height of pit lights.



Commendations

Honored in June

THE FOLLOWING OPERATORS received commendations during June for their courtesy and skill:

C. F. Adams, 4; U. V. Adams, 4; F. A. Ayres, 7; A. P. Baker, 9; R. M. Baker, 5; H. M. Baldrige, 20; L. H. Bardon, 3; Eugene Barnett, 4; S. Benavides, 11; T. F. Benedict, 4; L. S. Bernard, 2; L. F. Bonnett, 20; James Bradley, 4; W. G. Brewer, 4; G. A. Briggs, 6; A. R. Brown, 4; C. C. Brown, 7; H. A. Brown, 2; C. H. Bull, 8; Manuel Burgess, 5; C. T. Burris, 4.

B. W. Cantrell, 1; H. R. Castellano, 5; H. N. Chambers, 9; W. H. Chaney, 1; Arthur Conley, 2; W. Copithorne, 5; John Corr, 8; D. L. Correll, 12; E. W. Cotterly, 5; W. C. Crabe, 6; A. L. Crouch, 10; T. G. Cumberford, 3; B. W. Curtis, 5; Roscoe Dawkins, 4; J. E. Deal, 4; F. J. Diehl, 7; L. S. Dodge, 7; C. F. Ely, 20; Harvey Evans, 4; J. J. Evinger, 11; Ermal Fain, 4; Harold Fish, 6; C. C. Fisher, 6; J. L. Foote, 12; R. A. Forsythe, 6.

Frank Gardner, 11; Oscar Gibson, 2; G. O. Givens, 1; H. A. Goforth, 7; W. R. L. Goodman, 5; J. A. Goyer, 7; Lucian Grant, 6; P. B. Greet, 9; D. E. Grimm, 4; Michel M. Gross, 7; F. O. Guental, 5; A. V. Hand, 8; G. S. Harrison, 4; C. P. Hayes, 11; P. B. Hill, 20; L. H. Hinkle, 7; R. D. Hindley, 6; R. D. Hurd, 11; G. M. Holland, 11; S. D. Holland, 2; H. H. Huber, 10.

B. L. Hunter, 9; H. C. Hunten, 11; F. V. Hutchinson, 5; L. D. Jensen, 4; S. L. Jensen, 5; C. E. Johnson, 2; N. M. Jones, 1; W. E. Jones, 4; D. H. Kern, 4; C. E. King, 11; S. A. Knight, 3; R. D. Kornell, 20; M. T. Kretschmer, 9; J. J. LaFond, 4; G. G. Logue, 10; G. H. Lynch, 6; G. S. Mattern, 2; N. O. Mayer, 5; L. P. McAvoy, 4; H. B. McCollum, 9; G. R. McKenzie, 4; P. L. McMillan, 1; W. H. Menges, 7; B. J. Miller, 9; E. F. Morgan, 6; A. W. Moore, 3; R. A. Moore, 8; W. D. Moorehead, 4; H. W. Morrow, 5.

F. P. Nanny, 6; H. G. Norie, 5; E. A. O'Connor, 12; L. P. Parker, 20; S. O. Parker, 2; J. C. Pateman, 2; R. J. Patton, 5; O. W. Perdue, 11; F. A. Peters, 10; R. V. Peters, 10; S. K. Pritchard, 1; Venice Pratt, 20; H. R. Quibell, 2; S. W. Rew, 12; F. O. Rider, 7; Cartrell Robinson, 4; Seymour Rona, 6; B. N. Rubin, 8; M. B. Ruf, 7; J. R. Rufer, 8; Gonzalez Sanchez, 2; P. N. Schmidt, 2; Ann C.

Operator of the Month

V. C. ("DICK") PRETTYMAN, Long Beach Division Operator whose name has been for years a



V. C. Prettyman

synonym for courtesy and good fellowship among his passengers, was chosen July Operator of the month by three judges from the Culver City Chamber of Commerce.

But they didn't know this about Dick. They knew only that a passenger had written a letter portraying an outstanding Operator whose name they did not know because all letters in the monthly contest are retyped for judging, with all identifying data left blank. They read such phrases as: "has a smile and a cheery word for everyone who boards"—"has the ability to understand and appreciate someone else's feelings in a given situation"—"I saw him run after a woman who had left a package on the bus and personally return it to her"—"lifted a heavy suitcase off the luggage rack and set it down on the curb for an elderly lady."

Schulz, 4; C. J. Shaw, 11; S. B. Sowell, 2; T. W. Spurgeon, 20; W. Y. Stearns, 4; W. C. Stephens, 11; G. M. Stoute, 4; P. W. Stringer, 7; W. C. Suey, 4; W. C. Swarthout, 11; J. S. Theisen, 4.

E. A. Thoman, 8; F. H. Thompson, 9; W. B. Tibbs, 20; V. M. Torres, 2; E. C. Turner, 20; C. A. Uland, 3; H. A. Walter, 5; R. J. Walters, 4; P. J. Wargo, 3; Elodies Watson, 11; G. G. Weaver, 5; R. L. Webster, 6; D. B. White, 4; V. F. White, 4; H. L. Whitley, 8; A. J. Wier, 5; B. L. Williams, 4; G. C. Williams, 5; F. D. Wilson, 4; H. J. Winett, 10; H. C. Woodie, 11; Harry Zipper, 4.

OUR COVER

Funland Ticket Center

FIRST STEP in a summer promotion to remind tourists as well as residents of Southern California that all sorts of interesting places may be easily and comfortably reached via MTA buses, trolley coaches and street cars, was this display over the ticket and information counters at the Sixth and Main Station.

Information Clerks visible behind the counter at the left are Mae Ruffner, nearest camera, and Catharine Haldeman.

From the opening day, June 30, public interest has been stirred by the promotion and inquiries are continuing at an unusual rate, according to Betty Wood, Chief PAX and Information Operator. People are especially interested in Disneyland, Pacific Ocean Park, Catalina, and the homes of motion picture stars, she states.

In Memoriam

THE EMBLEM regretfully reports the passing in June of the following:

John M. Cook, retired Air Brake Foreman; June 9; survived by his daughter, Mrs. Lavenia Bates; and his son, Robert H. Cook.

Charles H. Engstrom, retired Switchman, Division 1; June 29; survived by his wife, Myra.

Dwight O. King, Operator, Division 6; June 3; survived by his wife, Amelia.

Leo D. Merriman, retired Car Repairer; June 21; survived by his wife, Lela.

Francisco Paramo, Laborer, Way and Structures; June 24; survived by his wife, Celia.

The Emblem

Vol. 1 July, 1959 No. 12

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W. Warren Silliman, Editor

First of Regional Maps Shows S.F. Valley Routes



THIS IS THE COVER of MTA's new "Guide for Going Places in the San Fernando Valley," produced through the combined efforts of the Advertising and Sales Promotion Dept. and the Schedule Bureau.

First of a projected series of regional maps showing MTA routes and points of interest in different areas on the system, the San Fernando "Guide" was made available to residents of the Valley on July 15.

Opened flat, the brochure measures 14 x 20 inches. One side has the map; the other an illustrated description of points of interest and how to reach them via MTA.

The "Guide" is printed in green.

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