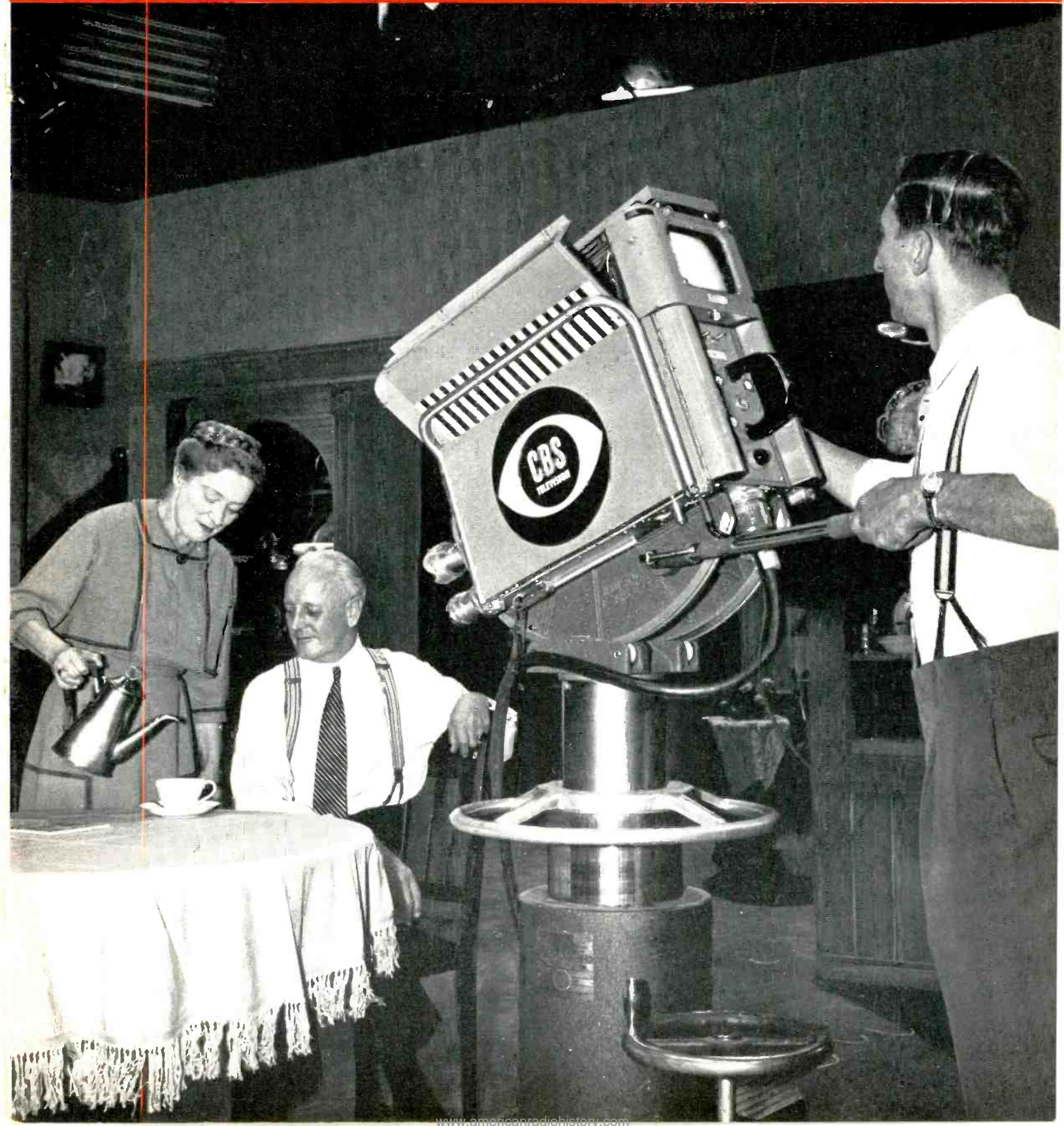


RADIO, TV and RECORDING



TECHNICIAN-ENGINEER

OCTOBER, 1955





The INTERNATIONAL BROTHERHOOD of ELECTRICAL WORKERS

GORDON M. FREEMAN International President
 JOSEPH D. KEENAN International Secretary
 W. A. HOGAN International Treasurer

ALBERT O. HARDY Editor, Technician-Engineer

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"Mama" Hansen, the well-known television personality portrayed by Peggy Wood, pours a cup of the sponsor's product for Judson Laire ("Papa"), as Dick Kent, CBS cameraman, trains his camera nearby. Kent, a member of IBEW Local 121, New York, is one of a veteran crew of union technicians who have put on the popular network show season after season. (See story on Page 12, this issue.)

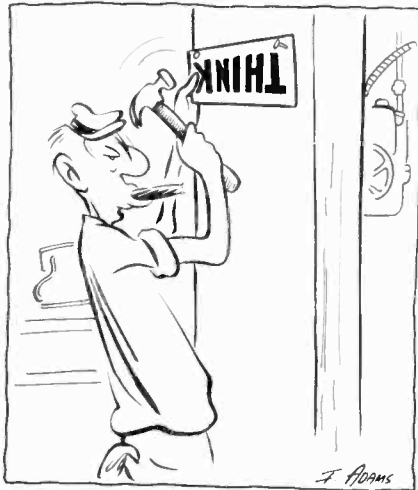
commentary

Teamwork is achieved through voluntary effort pooled in a common cause, with the accent on voluntary. Unless the workers' will is in it there will be little teamwork. That will cannot be forced; that is why leadership is better than driving and voluntary effort more effective than effort induced through fear. The driver relies upon fear—fear of ridicule, sarcasm, humiliation or possible discharge. To a degree he may get results—but they are short-term results. He gets other results—hidden for the moment but likely to come into the open at a later date; these are the long-term results of worker dissatisfaction, hatred and disloyalty. The ultimate, overall result—the creation of a hard-hitting, loyal team—either is not achieved at all or is achieved in spite of the executive, wrong-headed leadership. Workers are often a long-suffering group, forgiving much because of some trait in a driver that they admire. Obviously it is dangerous to count on any such miracle of "followership."

the index . . .

For the benefit of local unions needing such information in negotiations and planning, here are the latest figures for the cost-of-living index, compared with the 1954 figures:

September, 1955—114.9 September, 1954—114.7



And Here We Are...

Prospective members of our union ask questions.

Are you prepared to give the full, complete answers?

“**W**HAT is the IBEW? What is its history? What does an electrical workers’ union offer employees in an electronic industry—such as broadcasting and recording? I’ve heard that the IBEW is the foremost union in the broadcasting industry but I’d like specific information about it.” These are the kind of questions which are asked by prospective members and, along with other thoughtful questions, deserve full and complete answers.

Contrary to a rather popular belief, a great number of people do not join a union for the purpose of obtaining higher wages—very often, a union member is looking for assurance of his job security, relief from substandard working conditions or written assurances of vacations, sick leave, seniority, reasonable rest periods, and so on. When he becomes a dues-paying member he expects attention to be given to his personal problems of employment and wants to be kept informed of the operation of his union.

THE WHOLE IS TOTAL OF THE PARTS

There are five general branches, specifically listed in the IBEW Constitution: outside and utility workers; inside electrical workers; communications, voice, sound and vision, transmission and transference employees; railroad electrical workers and electrical manufacturing employees. The communications, voice, sound, vision, transmission and transference employees’ branch consists of two general divisions—one includes radio engineers, operators, installers, inspectors, maintenance and repair men who are engaged in the transmission of voice, sound and vision. The second communications’ branch consists of employees of companies engaged in telephone, telegraph and the general type of work associated primarily with metallic conduction of electricity having to

do with communications. This article will concern itself only with that branch which covers broadcasting and its ramifications.

WHERE AND WHEN DID IT START?

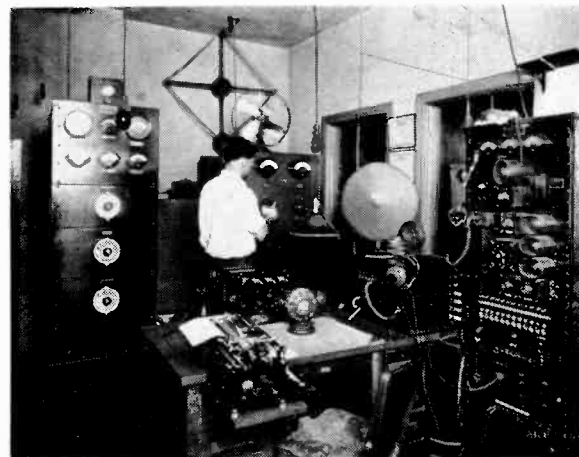
As a result primarily of the interests of the inside wiremen, established Local Unions of the IBEW encouraged organization in the broadcasting industry in the early thirties. About 1931 Local Union No. 1 (appropriately enough) in St. Louis initiated radio men in the area and in 1932 Local Union 134 in Chicago followed suit. The first Local Union chartered exclusively for radio men was Local Union 253 in Birmingham. After the Birmingham charter was established in October of 1933 considerable interest was shown in other parts of the country, leading to charters in Milwaukee, New York, Chicago, Washington and many other metropolitan centers. As the industry grew, the membership grew and more and more charters appeared when radio men started to “fly solo” and formed their own Local Unions from the membership of the wiremen’s unions. On the other hand, many radio men preferred to stay in the Local Unions they first joined; as of today, 34 Local Unions have members employed in broadcasting as well as members employed in some other branch of the electrical industry and 50 Local Unions are made up exclusively of members employed in radio, television and recording. The whole story is not told by the mention of 84 Local Unions—because of the geographical jurisdiction of those Local Unions, 225 cities in the United States, three in Canada and one in the Territory of Hawaii are covered by these 84 Local Unions.

THE EVOLUTION OF AGREEMENTS

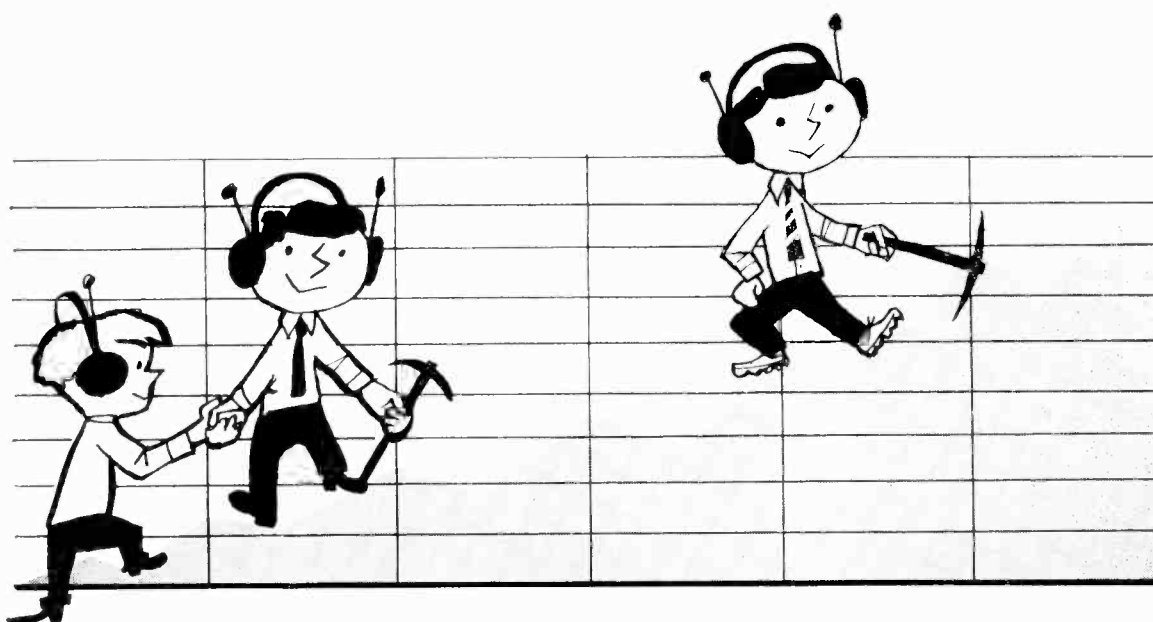
The archives make interesting reading—the agreements written in the thirties have only a very general

similarity to agreements written in 1955. For example, a 1934 agreement contains a provision that "the wage scales attached hereto as Exhibit A and B are predicated upon a 48-hour week." Further in the same Section, this agreement states, "Within each week each member shall be entitled to one day off." Compare these provisions with present-day agreements which provide for two consecutive days off during each workweek, established and granted with regularity, the prohibition against more than five consecutive work days and the fact that notice of change of days off must be posted as much as 30 days in advance.

Many obstacles were responsible for the slow evolution of present-day agreements. The early thirties produced a pattern based upon the prevalent practice of telephone companies, for example, who believed that their employees were not eligible for top-scale pay until



IN 1924 KNX, CBS Radio's key outlet in Los Angeles, was operating with this 500 watt transmitter in the Hoffman Building. The technician was Paul O'Harra, now Audio Supervisor for KNX and CBS Radio.



they had served a company for as many as 10 or 12 years. The telephone companies' thinking has not changed very much since that time as they still base many skilled workers' pay on a 9-year escalator. Conversely, IBEW agreements in the broadcasting industry show consistent progress toward flat scales of wages.

STANDARDS HAVE DEVELOPED

While enactment of the Fair Labor Standards Act in 1938 was responsible for establishing the 40-hour week in interstate commerce, no Federal or State law requires payment of overtime on a daily basis. Nor does any law prohibit split shifts. Similarly, no law has established any rest period between shifts. The IBEW has been responsible for leading the now common practice in the industry of the eight-hour day (*with meal period included—not excluded*), the 12-hour rest period and the definition of two days off as 60 continuous hours.

These common practices have become standard practices because the IBEW represents the employees of more than four times as many television stations and 20 times as many radio stations *as all other unions combined*.

IBEW SETS INDUSTRY STANDARDS

Experience teaches everyone that it is not only what you say but how you say it which makes a difference. For example, compare the following provisions:

1. Discharges.

"(a) The Employer shall have the right to discharge any Technician for cause and shall give notice in writing to the Technician and to the Union stating in writing the reason for such discharge. Such notice of discharge shall be given the Technician being discharged not less than two (2) weeks prior to the termination of his employment or, in lieu of such advance notice, the Employer will pay such Technician two (2) weeks' salary.

(b) If the Union believes any discharge to be unjustified, the matter shall be considered a grievance and be handled as provided in Article II of this Agreement; the Arbitrator(s), in cases where it is determined that a Technician has been unjustly

discharged, may make an appropriate award to such Technician for all time lost, subject to the provisions of Section 2.03."

II. Discharges.

"(a) The power to discharge and discipline remains with the Employer. The Employer shall have the right forthwith to discharge, without notice, any of the employes for cause. Cause shall be deemed to include: theft, repeated lateness, intoxication on the premises, disorderly conduct on the premises or being physically or mentally unfit to work.

(b) The Employer shall have the right to discharge any of the employes for any reason other than cause as set forth in sub-division (a) of this Article on two (2) weeks' notice or on the payment of two (2) weeks' basic wages; it being understood that this right shall be exercised by the Employer with considered judgment and due regard to such compelling circumstances existing at the time which may require the use of this discharge provision."

No, the discharge clause numbered II (above) is not an excerpt from an agreement of the 1930's—it appears in an agreement *currently in effect*—but *not* an IBEW agreement. Clause I is typical of discharge provisions which will be found in IBEW agreements. IBEW local unions would not negotiate, nor would the International Office approve, an agreement containing a clause like II (b). II (b) is typical of the double-talk which we have eliminated from agreements in the industry and the kind of "management clause" which makes agreements impotent to justly serve the workers' interests.

Another standard of reasonable job security concerns newly-hired employes. It is obvious that a new employe may not prove to be satisfactory for the job he is hired to take. How long it takes him to show his capability and the justification for his "permanent" employment has long since been standardized by IBEW agreements. The industry, generally, recognizes a 60 or (at the most) 90-day probationary period. A union which claims to be competitive to the IBEW is a party to:

I. "... all employes shall be temporary employes for a period of one (1) year from the date of their employment with the Company and shall thereafter be regular employes."

Still another union has agreed that:

II. "Any employe employed by the Employer after the date of this Agreement shall be considered to be on trial employment for a period of six (6) months and during the said six (6) months the Employer may discharge such employe at any time."

Compare these two provisions with an IBEW statement on the same subject. The following language is typical of IBEW agreements:

"(a) During the first ninety (90) days of any Technician's employment he shall be on probation and the Employer may terminate his services at any time during the probationary period upon one (1) week's notice. During the period of probationary employment, such Technicians shall work under the conditions and receive not less than the minimum rate of pay provided in this Agreement.

(b) Technicians who have not completed their probationary period prior to layoff and who are subsequently re-employed shall be credited with all time accumulated prior to the layoff so that the probationary period does not exceed the ninety (90) days in the aggregate."

Nothing can be obtained without effort. When that effort is made by 625,000 IBEW members who are united in a common cause—to organize the electrical and electronic industries—each of the individual members benefit. With only a little effort on the part of each, a tremendous amount of energy is available to all. This is unionism—this is the IBEW.

Organizing Booklet Answers Many Questions

The many benefits and services of membership in the IBEW have been dramatized and distilled into a little pocket-sized, 12-page booklet prepared and distributed by the Radio, TV, and Recording Division of the Brotherhood. Called, *What's Your Future?*, the little publication is a powerful selling medium for local unions actively organizing.

Beginning with a listing of the job classifications covered by the broadcasting division, the booklet answers just about every question a non-union technician or engineer might ask. The back cover of the booklet is a detachable postcard certifying willingness to be represented by the IBEW.

What's Your Future? urged the non-member to "join the majority," pointing out that the IBEW is a party to more than 90 per cent of the union contracts for engineering personnel in the industry. IBEW-AFL represents employes in four times as many TV stations and 20 times as many radio stations as all other unions combined.





MASTER CONTROL console, Voice of America, has 15 channels on each side of a telephone switchboard and a "remote" switching panel. The swinging feature of each channel indicator and VU meter can be seen in this picture.

New Headquarters for

THE VOICE OF AMERICA

THE Voice of America's Master Control equipment, believed to be the largest and most flexible in the world, was placed into operation in Washington, D. C., October 6, by Theodore C. Streibert, director of the U. S. Information Agency.

The new control equipment was especially designed and constructed to meet the unique needs of the Voice of America in handling and switching some 75 programs in 39 languages daily.

The Voice's headquarters were moved from New York City to Washington last fall, and the new studios at the Health, Education and Welfare Building were formally opened on December 1, 1954. During the last ten months, however, Voice programs have been routed to domestic transmitters through temporary facilities pending the completion of the control equipment.

Master control is the electronic heart and brain which interconnects Voice studios, mobile crews and other program sources with high power shortwave transmitters located in three areas of the United States. It is capable of selecting programs from 100 different sources and can handle 26 separate transmissions at one time. The equipment is now being used to select programs from 29 sources and to transmit 14 broadcasts simultaneously.

In addition to programs originating in its own studios and transcription rooms, the Voice has direct lines to the White House, the radio galleries of the Halls of

Congress, Constitution Hall, the four commercial radio networks, nine Washington stations and its New York City studios. Through the two lines to New York, the Voice has direct contact with United Nations headquarters and "two-way" contact with VOA radio centers in Munich, Germany, and Paris, France.

Voice programs are beamed abroad on shortwave from 30 transmitters located in the United States—in the New York City area at Bound Brook, N. J.; Brentwood, N. Y.;

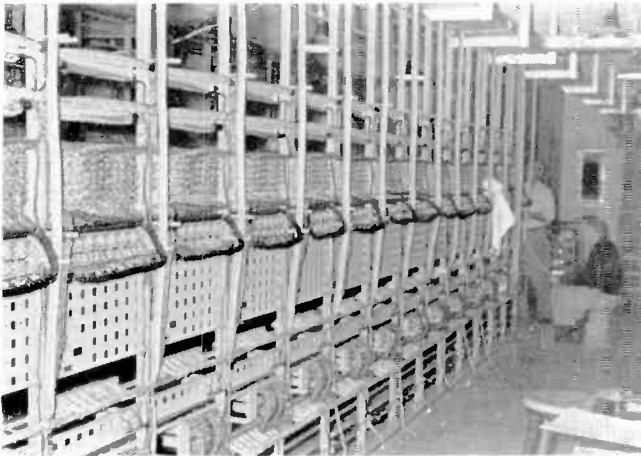
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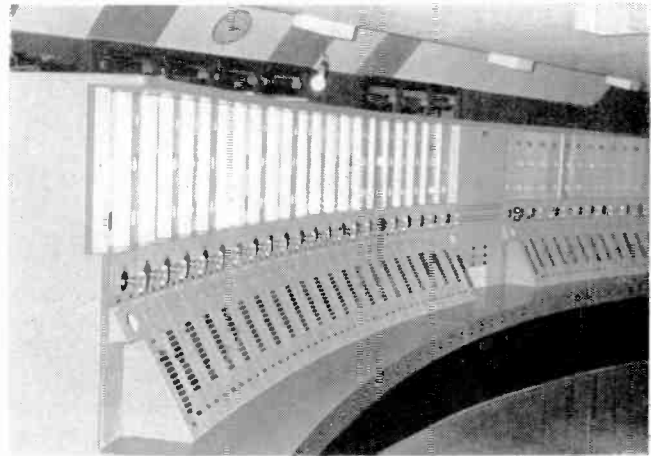
FINISHING TOUCHES being applied to cabinet wiring in one of the recording booths.

VOA Master Controls Under Construction . . .

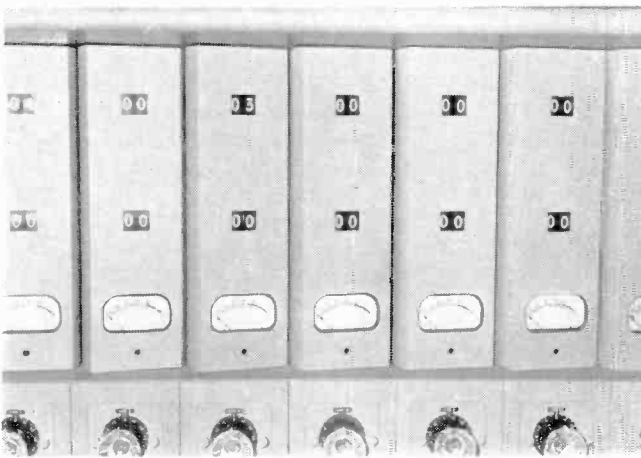
TURN THE PAGE FOR PICTURES OF THE COMPLETED INSTALLATION



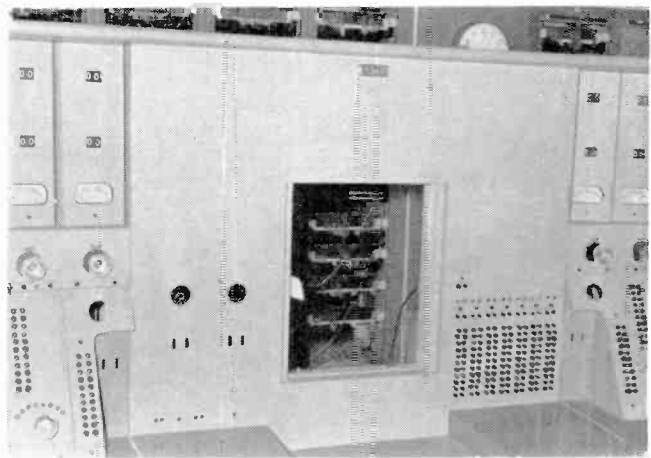
TERMINAL RACKS prior to relay installation. Approximately 375 miles of shielded wire was used in overall construction.



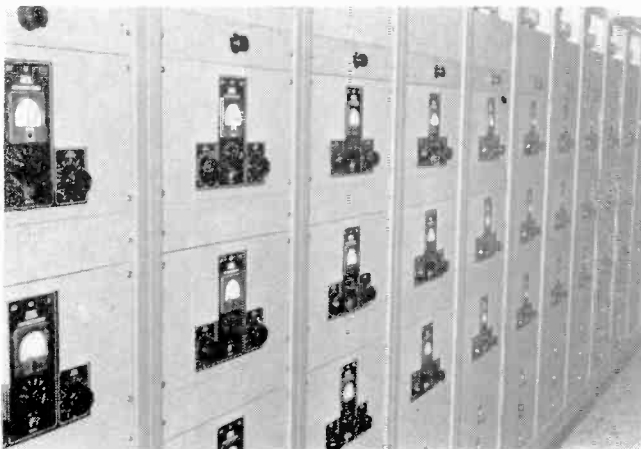
CONTROL CONSOLE, prior to completion, Recording Facility. This is almost an exact duplicate of the Master Control Console shown in operation on Page 6.



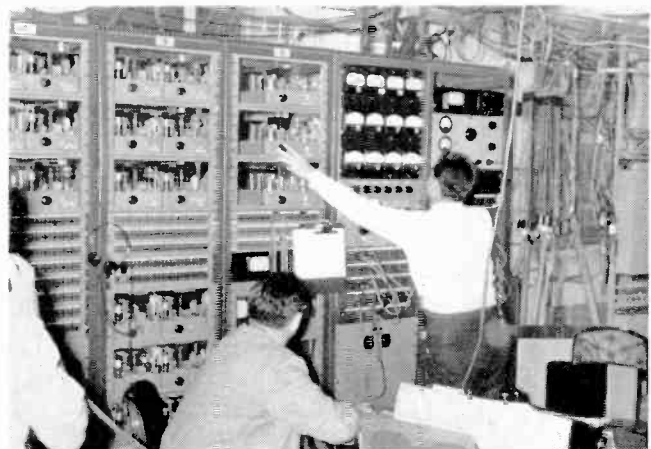
CLOSE-UP VIEW of the VI panels, showing the pre-set and line indicators, typical of both the Recording and Master Control Consoles.



THE MASTER CONTROL DESK awaiting the telephone switchboard installation. "Remote" and master (group) switching panel is at lower right.



A RACK OF RECORDING amplifiers in the equipment room behind Recording Master Control. Sixteen tape recorders and 24 disc cutting machines are used.



THE TEMPORARY Master Control used while permanent facilities were under construction. (See another view on Page 8.)

VOA, *Continued from page 6*

Schenectady, N. Y., Wayne, N. J., and Scituate, Mass.; in the Cincinnati area at Bethany, Ohio, and on the West Coast at Dixon and Delano, Calif.

Master Control is connected to these eight "feeder" bases by five direct lines to New York City, three to Cincinnati, and one to San Francisco. Other lines for monitoring purposes run to the State Department and the main headquarters of the U. S. Information Agency at 1778 Pennsylvania Ave., N. W., in Washington.

With more than 75 different programs in 39 languages every 24 hours and a system of seven networks, the master control board was designed to permit automatic switching of all 26 channels at each program break. This automatic switching is made possible through a flexible arrangement of "pre-setting" the board to handle

a single transmission, a group of programs or for network operations.

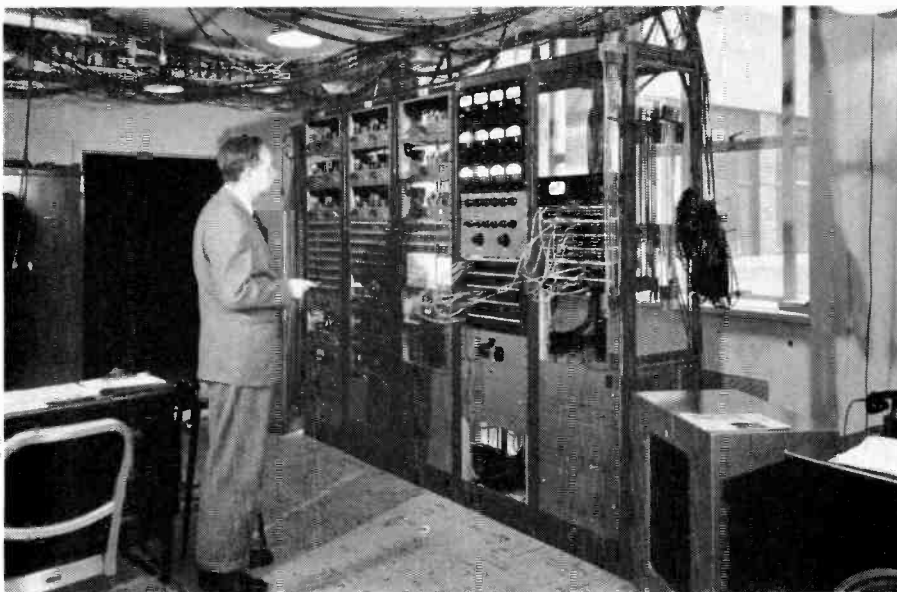
The board will be operated by two radio technicians at all times, except during peak periods when three engineers will be on duty. In addition to switching programs every quarter-hour, the master control technicians keep a constant check on the system, the volume level and the work of studio engineers. The board is equipped to permit the engineers to monitor each broadcast and to have direct contact with all program sources.

The Voice studios have been under construction since May, 1954.

The complete installation includes 14 studios, two transcription rooms, a recording control center with 24 disc cutting machines and 16 tape recorders, an extensive equipment room and 78 "Strowgers" to permit monitoring of all programs by staff members.

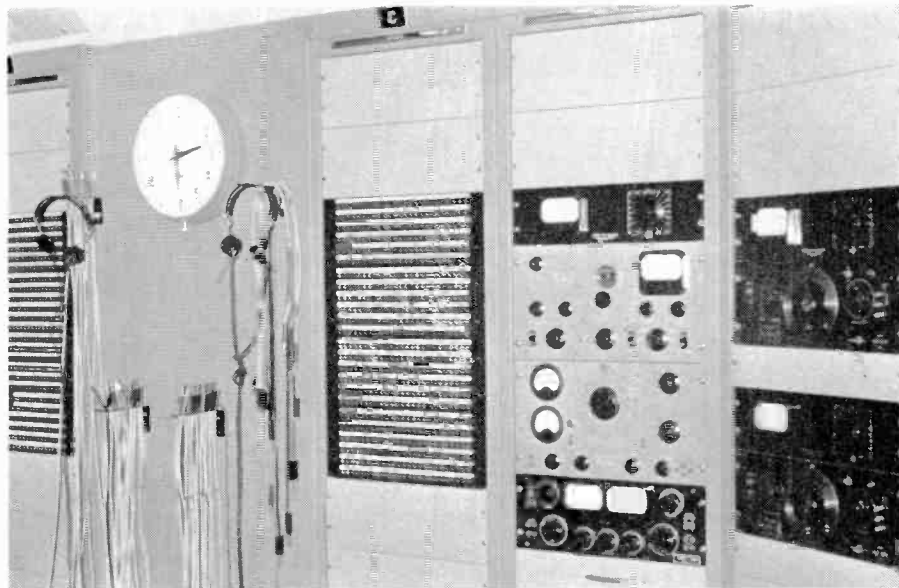


TERMINAL RACKS in the equipment room behind Master Control. The D. C. power supply room is to left, rear.



THE TEMPORARY Master Control Board used by VOA. Walter Tucker is the technician checking equipment.

MEASURING EQUIPMENT and part of the jack system in racks behind the Master Control Desk.

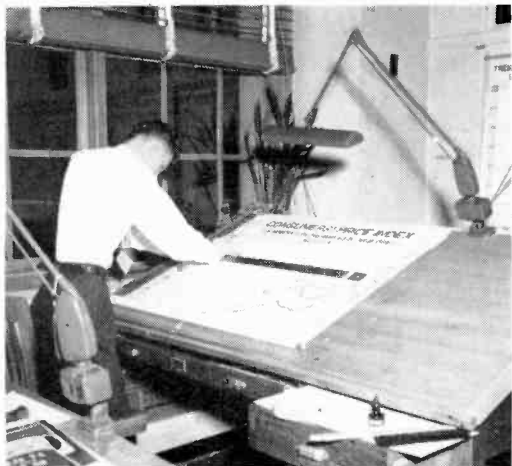


BILL O'BRIEN, recording technician at a bank of Ampex tape recorders, used prior to their permanent installation in recording booths.



AN ENGINEER at work in one of the studio control rooms. The new facilities have 14 studios, with substantially identical control rooms.





A STAFF ARTIST at the U. S. Bureau of Labor Statistics adds finishing touches to a new wage comparison chart.

HOW YOUR UNION CAN USE B.L.S. SURVEYS

A VARIETY of wage information is collected and published by the Federal government, principally through the Bureau of Labor Statistics of the U. S. Department of Labor. Much of this information can often be helpful in the course of wage negotiations. Some of the BLS surveys are useful to a particular local union, in terms of comparisons which can be made with wages in other localities.

A union need not make a statistical presentation to justify its wage demands, in many cases. Nor need it be limited by wages in effect elsewhere. However, if its members are being paid less than other workers in the industry or area, or if their wage adjustments have lagged behind increases which have been put into effect elsewhere, a stronger case can be made if there are wage statistics available which support this fact.

BLS provides data on wages for specific jobs; for certain industries on a nationwide basis or for selected areas, for several trades and for selected major communities. Information is also regularly published on the trends in negotiated wage adjustments. It's monthly "*Current Wage Developments*" reports on settlements negotiated with various companies. Another BLS report measures *overall earnings levels and movements* for entire industries and *the economy as a whole*,

rather than for specific jobs or companies; this will be found in the monthly "Hours and Earnings" report.

Community Wage Surveys

The BLS program also includes, for certain major cities "labor market areas," data on earnings in certain occupations found in most industries. Such cross-industry surveys, commonly called *community wage surveys*, were made in 17 major cities during the fiscal year ending June, 1955. The 17 cities examined in 1954-1955 are: Atlanta, Baltimore, Boston, Buffalo, Chicago, Cleveland, Dallas, Denver, Los Angeles, Memphis, Minneapolis-St. Paul, Newark, New York City, Philadelphia, Portland, Oreg., St. Louis and San Francisco-Oakland. During the coming year, BLS plans to survey again all but three of these cities. Baltimore, Buffalo and Cleveland will not be re-surveyed; in their place, Detroit, Milwaukee and New Orleans will be examined.

Caution in Use Is Advisable

Both industry and community wage surveys cover union *and* non-union workers. Therefore, allowances should be made for the fact that inclusion of the non-union workers usually results in an understatement of the wage levels which prevail in unionized shops and occupations. If only the community wage level is sought, however, only one correcting factor must be applied—there is a time lag between the date the survey is made and the date the results are published. Due consideration of the recent local trends should be given.

How to Get BLS Data

The different types of wage data available from BLS are not available in any single book or pamphlet. Requests made of the Bureau must specify the particular study or report desired. The best procedure for a local union representative who may wish to become more familiar with BLS data is to write to the Bureau, asking to be put on its mailing list for announcements of new publications. These announcements will enable a check of whether any new studies or reports have been completed which may be particularly useful.

Requests to BLS may be sent directly to the Bureau in Washington; however, it is preferable to address such inquiries to the regional offices. The addresses of the 5 regional offices are:

- New England Region:
18 Oliver Street, Boston 19, Mass.
- Mid-Atlantic Region:
341 Ninth Avenue, Room 1000, New York 1, N. Y.
- Southern Region:
50 Seventh Street, N. E., Room 664, Atlanta 5, Ga.
- Western Region:
630 Sansom Street, Room 802, San Francisco, Calif.
- North-Central Region:
105 West Adams Street, 10th floor, Chicago 3, Ill.



Elmer Theisen operating camera in one bucket; operator of "Sky Worker" is in the other bucket.

A GIANT "Sky Worker" ordinarily used by a Minneapolis electric utility to trim trees and reach high voltage lines became a novel television camera boom for a remote telecast by WCCO-TV, a station employing members of IBEW Local 292.

Northern States Power Company of Minneapolis loaned the unusual device to WCCO-TV, to help in televising the 1955 Minneapolis Aquatennial Parade. A camera and two engineer-operators were stationed in the two tubs at the end of a jointed steel arm 40 feet long, and the controls of the "Sky Worker" enabled them and the camera to be swung smoothly to virtually any position desired for television picture purposes. The boom could be extended a full 40 feet straight up, for a panorama view of the procession; swung directly over the floats; or dropped immediately in front of individual units in the parade. Its motion was smooth enough that pictures could be transmitted while the long boom was moving—permitting a variety of unusual shots.

The "Sky Worker" camera platform was part of a three-camera installation. Another camera was mounted in conventional manner on top of the WCCO-TV remote truck; the third camera was planted directly on the ground between the remote truck and the "Sky Worker."

'SKY WORKER' BECOMES CAMERA BOOM FOR MINNEAPOLIS MEMBERS



Lower left of picture, Cameraman W. Hartman picking up float as it makes turn on track of Minneapolis Parade Stadium; upper left of picture, Camera Boom. The third camera (right side of picture), manned by H. Murray, was mounted on top of mobile unit.



The "Sky Worker" was used again to help in televising the Hopkins, Minnesota, Raspberry Festival. Bergstrom manned the street level camera and Elmer Theisen was in boom.



Rehearsing 'MAMA'

"Mama," television's oldest family dramatic show, started its seventh consecutive year on the CBS net, October 7. As in previous years, the series is ably handled by IBEW technicians and cameramen, all members of IBEW Local 1212. During rehearsal of the opening show of the current year, our staff photographer took these pictures of the crew and cast at work. ABOVE: Rosemary Rice ("Katrin") turns the titling for Cameraman John Lincoln. Patti McCormick ("Ingeborg") looks on. RIGHT: Jay Saffron, cameraman; "Ingeborg" and "Dagmar" of the cast; and Linwood Brantley, mike boom operator.



FRONT ROW: Frank Protzman, technical director; Walter Otto, sound effects; Nat DeGutz, video control; Peggy Wood, "Mama"; Marvin Lee, mike boom operator; Jay Saffron, cameraman. REAR: Lyn Brantley, mike boom operator; Joe Sakota, cameraman; Fred Kukla, record man; Herb Donley, audio man; and Dick Kent, cameraman.



Dick Van Patten, who plays "Nels" in the cast, with Linwood Brantley, mike boom operator, during a pause in the rehearsal.

Jailed For Not Paying His Dues

A man was jailed the other day because he didn't pay his union dues. Tell that to a lawyer, and he may say something about "union tyranny."

But he'll probably change his tune when you tell him that the man was jailed for not paying his dues to the lawyer's union. *The San Francisco Chronicle* reports it this way:

"An Oakland attorney, Byron L. Dusky, is serving a three-day jail term because he practiced law while under suspension by the State Bar Association of California. Dusky was arrested when he appeared in municipal court to defend a client. A check by Deputy District Attorney Melvin Dykman revealed that Dusky was suspended by The Bar Association for failing to pay his dues."

The report explains that "an attorney must maintain paid-up membership in the Bar Association in order to practice law in California."

The same is true in many other states, including Oregon. They require all lawyers to join the Bar Association, which is the "lawyer's union," and to keep their dues paid up; otherwise, if they try to make a living by practicing their profession, they can be fined or jailed. It's a closed shop, enforced by law.

Form 1
Form 3126
Rev. 8-10

Read the instructions
on page 2 of this form.

STATEMENT REQUIRED BY THE ACT OF AUGUST 21, 1912, AS AMENDED BY THE ACTS OF MARCH 3, 1933, AND JULY 2, 1946 (Title 39, United States Code, Section 213) SHOWING THE OWNERSHIP, MANAGEMENT, AND CIRCULATION OF

Radio, TV and Recording Technician-Engineer published monthly
at Washington, D.C. for October 1955

1. The names and addresses of the publisher, editor, managing editor, and business managers are:
Name Address
Publisher Int'l. Bro. of Electrical Workers 1200 Fifteenth St., N.W.
Editor Albert O. Hardy 1200 Fifteenth St., N.W.
Managing editor None
Business manager None

2. The owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual member, must be given.)

Name Address
International Brotherhood of Electrical Workers 1200 Fifteenth St., N.W.
Washington, S. D.C.
(an unincorporated labor organization)

3. The known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.)

Name Address
None

4. Paragraphs 2 and 3 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner.

5. The average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the 12 months preceding the date shown above was: (This information is required from daily, weekly, semiweekly, and triweekly newspapers only.)

Albert O. Hardy
(Signature of Editor, Publisher, Business Manager, or Owner)

Sworn to and subscribed before me this 9th day of September, 1955

[SEAL]

Lawrence A. ...
NOTARY PUBLIC
My Commission Expires Sept. 30, 1957.

(My commission expires 19...)

OCTOBER, 1955

Glossary of COMPANY PROCEDURE

Reprinted from IBEW local publication, "Clear Vision."

A PROGRAM: Any assignment that can't be completed in one telephone call.

TO EXPEDITE: To confound confusion with commotion.

CHANNELS: The trail left by inter-office memos.

COORDINATOR: The guy who has a desk between two expeditors.

CONSULTANT: Any ordinary guy more than 50 miles from home.

TO ACTIVATE: To make carbons and add more names to memo.

TO IMPLEMENT A PROGRAM: Hire more people and expand the office.

UNDER CONSIDERATION: Never heard of it.

UNDER ACTIVE CONSIDERATION: We're looking in the files for it.

TO NEGOTIATE: To seek a meeting of minds without a knocking together of heads.

A CONFERENCE: A place where conversation is substituted for the dreariness of labor and loneliness of thought.

A MEETING: Amass mulling by masterminds.

RE-ORIENTATION: Getting used to work again.

RELIABLE SOURCE: The guy you just met.

INFORMED SOURCE: The guy who told the guy you just met.

UNIMPEACHABLE SOURCE: The guy who started the rumor originally.

A CLARIFICATION: To fill in the background with so many details that the foreground goes underground.

WE ARE MAKING A SURVEY: We need more time to think of an answer.

NOTE & INITIAL: Let's spread this responsibility around.

LET'S DISCUSS: Come down to my office; I'm lonesome.

LET'S GET TOGETHER ON THIS: I'm assuming you're as confused as I am.

GIVE US THE BENEFIT OF YOUR THINKING: We'll listen to what you have to say as long as it doesn't interfere with what we've already decided to do.

WILL ADVISE IN DUE COURSE: If we figure it out, we'll let you know.

SPEARHEAD THE ISSUE: You be the goat.

THE ISSUE IS CLOSED: I'm tired of the whole affair.

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Intermixing Tape

Equipment that automatically intermixes program material from two different tapes on a pre-determined sequence and frequency has been developed by Magne-Tronics Inc., New York, for its fm multiplex and wired music franchises.

According to P. L. Deutsch, president of the company that produces tape-recorded background music programs for business and industry, the equipment is designed to meet specific operating requirements for the firm's "injection tape system." Intermixture is cued by the duration of the silent intervals programmed between recorded material.

Two eight-hour tape playback machines interconnected with interval timers permit an operator to update any eight-hour tape by automatically inserting into the program the new tunes recorded and released on a regular basis by Magne-Tronics, Mr. Deutsch explained. Automatic intermixture of the contents of any two eight-hour tapes can be employed, and tape-recorded spot announcements can be machine-fed into the music program at desired points between selections. Mr. Deutsch said his firm expects by the year's end to more than double its 33 fm multiplex and wired music franchises now set up in U. S., Canada and Bermuda.

Tower Rules Asked

A joint government-industry committee recommended stricter government rules to prevent radio and television broadcast towers from becoming aviation hazards.

The recommendation was approved by committee members representing the Armed Forces, the FCC, the CAA and the CAB and various organizations in the aviation and communications industries. A representative of the National Association of Radio and Television Broadcasters abstained from voting.

The committee recommended constructing single towers to serve a number of stations in the same city or confining broadcast towers more than 500 feet in height to specific areas where they would not endanger airport traffic.

The committee recommended even tighter restrictions

on construction of 1,000-foot towers, saying they are "considered to be unwarranted hazards to air navigation," even when located away from airports.

Voice Powered X-Mitter

The Army Signal Corps has developed a tiny radio transmitter powered solely by the voice of the broadcaster using it.

Successful broadcasts have been made over distances of more than 600 feet with the new device, the Signal Corps Engineering Laboratories announced October 5.

Until now, electricity from some outside source, such as batteries, has been needed to operate radio transmitters.

Only the voice sound waves are needed to operate the new radio, which is small enough to fit inside a telephone mouthpiece. As long as the sender speaks, the radio works, and his voice is broadcast.

When the speech strikes the microphone, part of its power is transformed into electricity to operate the radio, while the rest goes into the broadcast.

Underwater TV

An underwater application of closed-circuit television which is enabling the U. S. Fish and Wildlife Service, Department of the Interior, to observe and test the performance of experimental fishery methods and equipment under actual oceanic conditions is reported by the Engineering Products Division of the Radio Corporation of America.

The application represents the first practical demonstration in this country of underwater television as a research tool for experimental work in fishery operations, and gives promise of a wide range of uses in marine biology and explorations, according to Reider F. Sand, Chief of the Fish and Wildlife Service's Gear Research and Development Program.

Currently, the Service is utilizing closed-circuit television in connection with the development of a midwater trawling net and in a remote study of shrimp in their natural habitat, he said.

The Service's underwater TV experiments were

initiated with "Operation Fisheye," conducted recently in the Gulf Stream off the east Florida coast. A standard RCA TV Eye closed-circuit system provided remote observations of experimental fishery gear towed at depths of more than 60 feet. The gear was illuminated only by natural sunlight, and the views produced on the TV monitor were sufficiently clear and sharp for photographing by both still and motion picture cameras.

Vibration Alarm

Zenith Radio Corporation, this month, introduced a new, novel and different automatic "waker-upper" for the hard-of-hearing people who can't hear alarm clocks. It is a 17-jewel wrist watch, the Sensalarm, that can shake the hard-of-hearing person awake at the appointed time without disturbing other members of the family.

William N. Brown, manager of Zenith's hearing aid division, said that the Sensalarm watch can be set like any alarm clock. When it goes off, its special vibrating back buzzes the wearer awake through his sense of touch.

In addition to sounding a tactile reveille, Brown said, the Sensalarm can serve throughout the day as a handy reminder for appointments, catching trains, etc. And it is one tool for the hard-of-hearing that will have equal value for those with normal hearing.

Brown said that the Sensalarm has a luminous dial and hands, and non-corrosive stainless steel back. It has the identical anti-magnetic movement with dual unbreakable mainsprings made famous in \$300 watches, he pointed out.

Suggested retail price of the Sensalarm watch in a nickel-chrome case is \$59.50; in a deluxe gold filled case, \$79.50. The watch is available only through Zenith hearing aid dealers—in the United States and Canada.

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OCTOBER, 1955

Electronics to Alter Our Everyday Life

Electronics—"the world's fastest-growing industry"—will become a \$15 billion industry in five years and a \$20 billion industry by 1964. Don G. Mitchell, Chairman and President of Sylvania Electric Products, Inc., predicted in a recent issue of *The Exchange Magazine*, the official monthly publication of the New York Stock Exchange.

"The electronics industry," Mr. Mitchell said, "appears to have a boundless horizon from the standpoint of new products and dollar sales; the expansion of companies already in the business and the new companies to be formed; the great number of new applications that will be found for electronic equipment; the increased strength that electronics will bring to National Defense; and the increased benefits it will bring to every aspect of our economy."

Calling color television "still something of a question mark," the Sylvania executive pointed out that not very many sets will be made until manufacturers get the price of color sets down to a more moderate level. But the manufacturer can't lower selling prices until sales volume is built up. "Therefore, the process is a gradual one with prices gradually declining and sales gradually rising."

Last year, he added, the industry produced only some 25,000 color sets; sold "very few of them" because they were developmental models. This year somewhere near 75,000 sets will be made; probably 50,000 sold.

"It will be several years," he stated, "before sales of color sets will outstrip black-and-white sets, and we believe that ten years from now color will account for about 60 per cent of all sets sold."

Expressing the opinion that the impact of electronics will be greatest on the everyday life of you and me, Mr. Mitchell looked into the future:

"Some day—and not far off—electronics will be applied to every room in the house. Think how satisfactory 'wireless' electrical circuitry could be—electricity conducted through the home by high frequency electronics instead of by wiring systems! Television will watch the kitchen and the nursery. Cooking by electronics already is being developed. How about starting your car on a cold morning by electronics while having breakfast, first opening the garage door by electronics? Electronic devices will take the hazard and discomfort out of auto travel—steering the car, braking it, and taking over functions subject to human error."

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Station Breaks



Material Pirating

Some Hollywood film distributors are complaining that projector operators at local TV stations are clipping musical "quickies" from syndicated packages to build up their station film libraries. Because policing is impractical, distributors are seeking other means of curbing the pirating.

Turntable War

The new 16 $\frac{2}{3}$ rpm phonograph turntable designed by CBS Columbia for the 1956 Chrysler automobile line has some industry manufacturers worried that CBS may be planning to launch 16 $\frac{2}{3}$ on other commercial markets. They remember the furor which developed after World War II when the 33 rpm discs came out. It is reported that a Chrysler official suggested that his firm is doing the first promotion job for the Columbia innovation.

The TV Capital?

Hollywood is the TV capital of the world, the president of a broadcast manufacturers' association said recently. An industry magazine cites the following statistics to back up the contention: TV in Hollywood is making 10 times more entertainment fare than the movies; 250 film packages comprise a \$100-million industry; three major networks will originate 1,474 hours of film and 1,294 hours of live shows during the coming year.

Russian Jamming

British news sources report that the Russians will insist—as their price for pledge to quit jamming Voice of America—that U. S. close down Radio Free Europe and Radio Liberation, both privately financed. The Soviet argument is said to be based on the Copenhagen treaty which allocated medium wave channels in Europe and will be made at Big Four Ministers' conference in Geneva late this month.

Mobile FCC Sleuths

For a quicker surveillance of TV signals, the FCC now has in operation the first mobile TV monitoring unit. The vehicle recently completed a "highly successful" monitoring trip into Pennsylvania. A second trip is scheduled for Virginia and points south.



PICKET LINE at WAPI, WAFM-WABT, Birmingham, Alabama. Three members of IBEW Local 253 on duty, with a beach umbrella nearby for protection against the Southern sun. The stations have been struck for 15 weeks.

The vehicle was developed and constructed by the FCC's Field Engineering and Monitoring Bureau in cooperation with the Laboratory Division of the Office of Chief Engineer. It was built at a cost of \$24,000, including vehicle and electronic equipment.

The Field Engineering & Monitoring Bureau will operate the vehicle to monitor distant TV transmissions that can't be handled by the Commission's fixed monitoring stations, aiding compliance with FCC's TV engineering regulations. The mobile unit also will gather data to be used in general TV problems.

The vehicle is equipped to study TV signals in relation to frequency measurements; modulation measurements to assess the efficiency with which the TV station impresses the picture or sound signals upon the respective carriers; wave form observations, and spectrum emission analyses to check the distribution of signals over assigned channels. A second mobile monitor is expected to be completed in eight months.

Technician-Engineer