

RADIO, TV and RECORDING



JANUARY, 1957

# TECHNICIAN-ENGINEER



RADIO, TV and RECORDING  
**TECHNICIAN-ENGINEER**

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The INTERNATIONAL BROTHERHOOD of ELECTRICAL WORKERS

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**. . . the cover**

Cameraman Jim Duffy of WTOP-TV, Washington, D. C., a member of IBEW Local 1215, explains his work to His Excellency Herve Alphand, the French Ambassador to the United States. Mr. Alphand was one of the interviewees on the January 11 edition of Edward R. Murrow's "Person to Person." With an assist from almost a score of IBEW members from the station, the French ambassador and his wife conducted a nationwide viewing audience on a tour of the stately Washington mansion on Kalorama Road, in the heart of the international settlement in the nation's capital.

Members of Local 1215 who participated in the January 11 operation found Ambassador Alphand a most gracious host.

**commentary**

SEEMS LIKE FAIR QUESTION

As the railway union's newspaper, *Labor*, recently reported, the Eisenhower Administration has come out against any tax cuts. Commenting on that, an editorial in *The Wall Street Journal* says:

"So there you are. The government today has greater tax revenues than ever before in history. It is not fighting a war, as it was during much of President Truman's term. There is no depression, as there was during much of President Roosevelt's term. Yet, in this year without war and with unparalleled prosperity, the Administration 'sees no basis' for cutting taxes."

The Wall Street paper asks "what has happened" to the promises that a Republican Administration would "reduce the people's taxes." That seems a fair question.

A CALL FOR T.V. ORIGINALITY

General David Sarnoff, board chairman of NBC-RCA, appealed to the recent convention of NBC affiliates, held recently in Miami, not to turn television into a national motion picture screen. "If you do," he said, "you will be forfeiting your responsibility and obligation to the American public."

Well said, General.

**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 1955 figures:

November, 1956—117.8; November, 1955—115.0.



## PERSON TO PERSON Visits the French Embassy

It takes skill and finesse to move cameras, lights, and tons of equipment into a body's home without overly disturbing the peace. The members of IBEW Local 1215 do it well.

By **CLEATUS E. BARNETT**

*President, Local 1215*

**B**EFORE Ed Murrow lights a cigarette and settles back in his easy chair for a Friday night "Person to Person" visit with celebrities, a host of technicians have made themselves temporarily at home at two "remote" locations in New York, Los Angeles, Washington, or elsewhere.

While Mr. Murrow talks across the miles from his New York studio, skilled technicians are busy riding gain on Murrow Boxes, peering intently at moni-

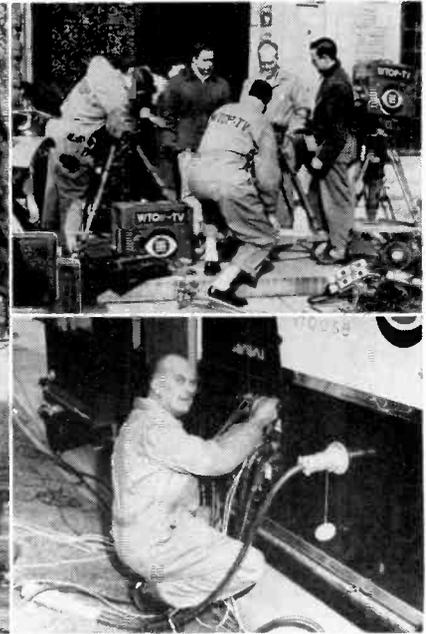
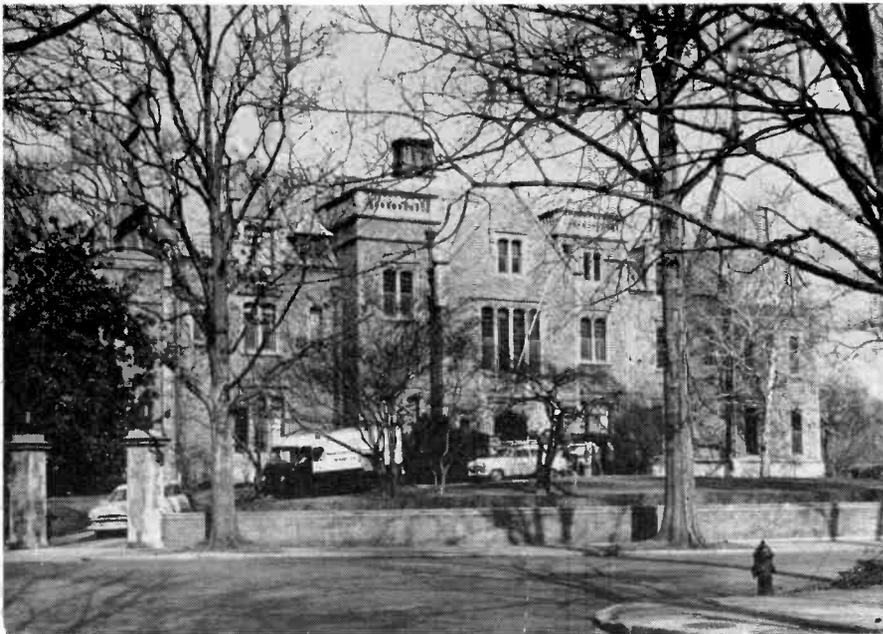
tors, and moving cable behind slowly creeping cameras.

On the night of January 11, such a crew of IBEW technicians from WTOP-TV, Washington, D. C., handled the pick-up on His Excellency Herve Alphan, the French ambassador to the United States and Mrs. Alphan from the embassy on Kalorama Road in the international settlement of the nation's capital.

The crew assembled at Broadcast House at 10:00 a. m. to prepare the field units for departure. Four cameras were used, with the control room in the mobile unit.

Probably the most difficult job on a "Person to Person" assignment is the lighting of the various locations. Guests move freely about their homes and, as they move from room to room, each room poses its special problem. At the French Embassy, the lighting proved to be routine with the exception of the entrance hallway. The Ambassador's wife, Mrs. Alphan, was to be picked





ABOVE: The WTOP-TV mobile truck and station wagons parked before the stately old Washington mansion which houses the French Embassy. UPPER RIGHT: Equipment is unloaded and assembled on the steps of the embassy. LOWER RIGHT: Elmer Chambers connects communication cable to mobile unit.

up on camera as she came down a winding stairway to meet the ambassador in the foyer. Earl Morgan and Jack Lepine were assigned to solve this lighting problem.

The results of the work which Morgan and Lepine put in on this troublesome area came very near to not being seen on the air at all. About three minutes before air time, Jim Duffy on Camera 2 reported that his camera was out. After a frantic change of plans to cover this blacked-out area Duffy was able to get his camera into service just seconds before air time.

Close personal attention by the ambassador was paid to one phase of the lighting. A portrait of Mrs. Alphan had just been completed, and he was anxious to show it to Ed Murrow and the audience. After several changes of both the lights and the placement of the portrait, it was given an okay by the ambassador. Because of his demonstrated proficiency as a lighting technician, consideration is being given to awarding Ambassador Alphan an honorary working card by Local Union 1215.

The participants of the show are connected audio-wise by what is known as the Murrow Box and Budelman Radio

Microphones. The Murrow Box feeds a group of speakers located at various points throughout the guest's home. It was designed especially for the show to eliminate feed-back during the interview. Selector switches permit technicians to feed Murrow, the director in the control room or any other desired audio feed to the speakers. In addition, a second amplifier in the box provides a program cue for the control room.

The speakers are so placed to enable the guests to converse with Murrow by talking toward the speaker. Guests look toward their right while on camera. They never see Murrow, but by look-



LEFT ABOVE: Don Herr and Merle Osborn loading equipment at the station. RIGHT ABOVE: Royce Fish and Harry Remmers load the truck before departure for the embassy.

ing toward their right they appear to be looking at him on the New York studio pick-ups.

The radio mike used by the guest is a battery-powered miniature transmitter which is secreted in the person's clothing. The transmitter antenna is a trailing wire which is dropped down a trouser leg, or underneath the skirt of a lady.

The man interviewed often wears the mike under his tie. The battery pack goes in one hip pocket and the transmitter in the other hip pocket. The lady may clip the mike to her bra and the transmitter and power pack into a belt at her waist. If she wears a form-fitting dress, she may carry the transmitter and power pack attached to elastic bands (similar to athletes' knee guards) at her knees.

Budelman, a skilled engineer from Stamford, Conn., designed the wireless mike especially for the show. Using ordinary hearing-aid batteries and tubes, it eliminates the clumsiness of cable-dragging interviews. Since "Person to Person" began using the mike, other shows have occasionally found it useful—Arthur Godfrey, Ed Sullivan, and the CBS shows, "Let's Take a Trip" and "Odyssey."

Long wire antennae strung in the approximate course which the interviewee will take picks up the mike signal and carries it to the receiver equipment. The receiver output is fed into the audio board as a regular mike input. Diversity equipment with the Budelman unit will permit two transmitters to be used with the unit, shifting to the alternate automatically in case of failure of the first unit. This equipment is very delicate and causes considerable trouble every time it is used. It is due to a high degree of competence on

the part of IBEW technicians operating it (and some luck) that it ever gets on the air.

It is interesting to note that a cab called by the director was asked to turn off his two-way radio upon approaching the embassy. His transmitted signals would interfere with the radio microphone.

During the first run-through of the program, Merle Osborn reported that he was picking up hash on the Budelman equipment and was unable to locate its source. Supervisor Harry Remmers suspected Embassy electrical equipment might be causing the trouble. It was finally localized in the oil-burning furnace in the basement.

"Person to Person" gets started early to keep such gremlins from appearing at show time. A technical survey is undertaken a week before the show, with the local technical director and a phone and power company man mutually "blocking the show." In some cases, P-to-P has had to use special microwave towers, but the French Embassy offered a straight shot to the local station.

Well in advance of the program, John Horn and "Chuck" Hill of the P-to-P staff came down from New York and held a two-hour audience with the ambassador and his wife to find out their interests and "rough out" the interview. About 24 basic questions for Murrow to ask were worked out and answers to them were paraphrased. With a Poloroid Land Camera, one of the men took set-up shots of the interior of the house for possible camera locations. Exterior views are taken as well.

Horn and Hill returned to New York and went over the preliminary plans and questions to be

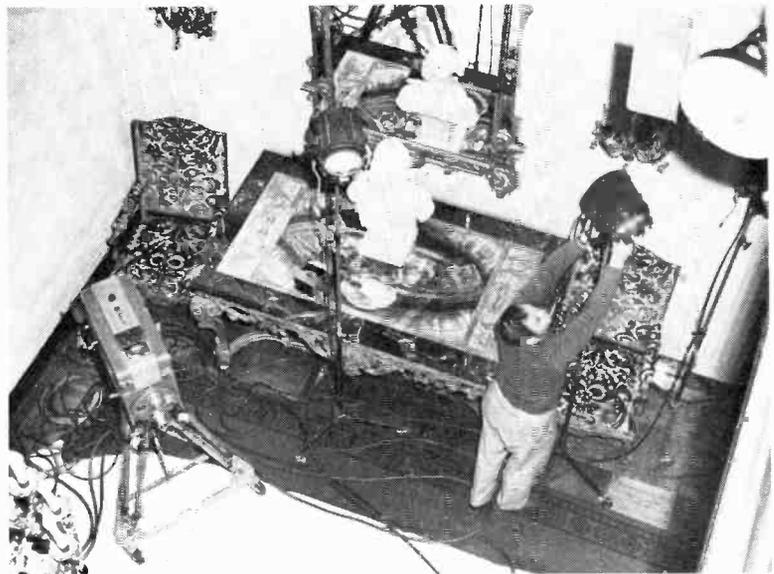
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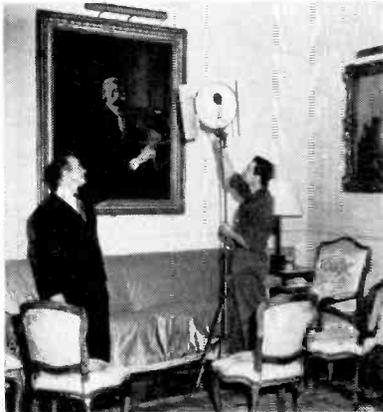
LEFT ABOVE: Mrs. Alphand, wife of the ambassador, second from right, and her social secretary direct the household staff in preparations for the Murrow visit, as visitors look on. RIGHT ABOVE: A production huddle: Don Culver, Stuart Cameron, Director Charles Hill, and John Horn discuss camera movements.



Cleatus Barnett, president of IBEW Local 1215 and a WTOP-TV staffer, checks out a camera in the embassy foyer.



Jim Duffy stretches to adjust a hot light in the embassy foyer.



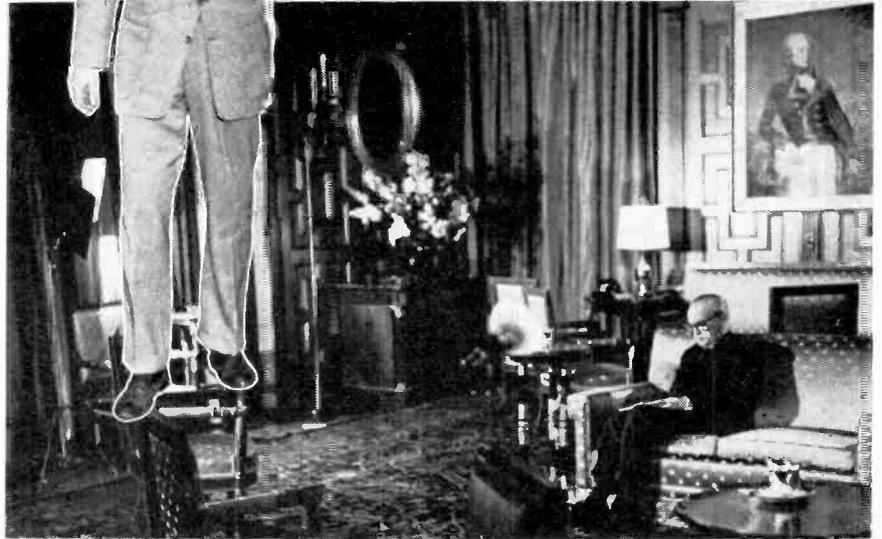
LEFT: Supervisor Harry Remmers directs the placement of a light by Jack Lepine. CENTER: Royce Fish checks a hidden mike in the library. RIGHT: Merle Osborn adjusts the Budelman radio microphone equipment.



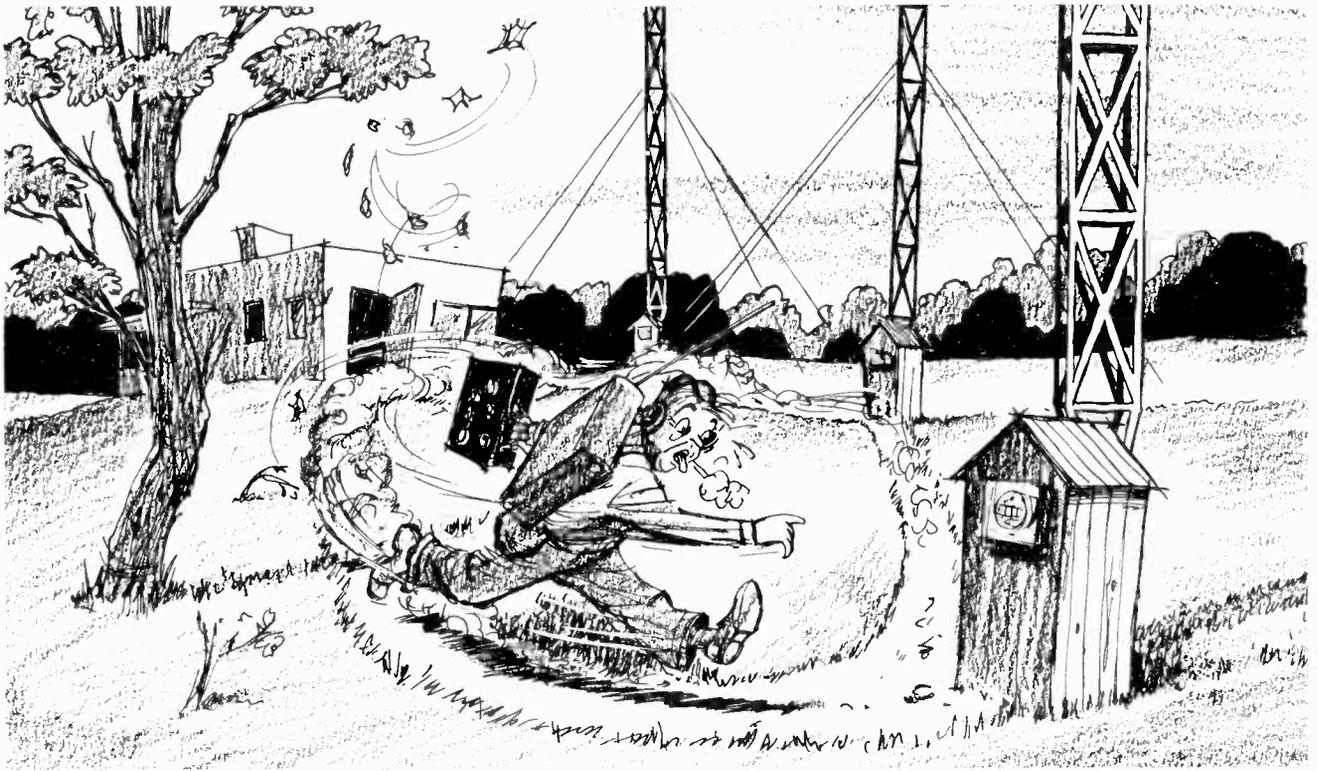
LEFT: Camera Control Man Earl Morgan matches levels on the cameras. CENTER: Supervisor Harry Remmers checks the AC load balance with a clamp-on ammeter. RIGHT: Switcher Don Horner makes a final check in the control room of the mobile truck.



Bud Kerrick, INSERT RIGHT, makes a last-minute radio microphone check, before show time. The "Person to Person" interview opened with the ambassador seated as we see him at RIGHT. Then, a camera manned by Bill Brewer, ABOVE, followed Mrs. Alphanth as she descended the stairs to join her husband. As the interview closed, two cameramen covered the interviewees from a corner of the sitting room, UPPER RIGHT.



LEFT: Part of the technical crew enjoying refreshments furnished by the embassy after the broadcast. RIGHT: The WTOP-TV crew included, left to right, Supervisor Harry Remmers, Don Herr, Bud Kerrick, Bill Brewer, Royce Fish, Earl Morgan, Merle Osborn, Bernie Swandic, Elmer Chambers, Jim Duffy, Don Horner, Jack Lepine, and Cleatus Barnett.



## The FCC Advises of Rule Interpretation

*We're Almost Sorry We Asked The Question*

ONE of our local unions raised the question with the International Office as to whether a transmitter technician might jeopardize his license by leaving the transmitter building for purposes of reading antenna base currents. The FCC's rules and regulations are not specific on the point and, in turn, inquiry was made of the Commission.

It is curious that—based upon the premise that the most essential reason for taking the meter readings at tower bases is to compare the readings with those of meters at the transmitter—one man should be assigned to an operation which, on its face, requires two men. The letter from the Commission makes no mention of this fact and to that extent, still leaves a cloudy issue.

The reply from the Commission does, however, make it clear that aural monitoring of the trans-

mitter and the Conelrad key station is mandatory during the peregrinations of the technician. Here again, there is a cloudy issue—what if this same station is the key station for the area? And what is the full meaning of “This interpretation does not relieve the operator of the requirement of logging appropriate meter readings at the transmitter at 30-minute intervals.” We gather that this last statement envisions that rule infractions will be found by the Commission in any case involving absences from the transmitter of longer than 30 minutes' duration.

The letter from the Secretary of the Commission is reproduced, in full, on the opposite page. To those of our readers who are interested, we can only offer the advice that “here is what has been said.” You take it from there.

JAN 4 '57 REC'D 110

FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON 25, D. C.

January 3, 1957

ADDRESS ALL COMMUNICATIONS  
TO THE SECRETARY

IN REPLY REFER TO:

8841

International Brotherhood of  
Electrical Workers  
1200 Fifteenth Street, N. W.  
Washington 5, D. C.

Attention: Mr. Gordon M. Freeman

Gentlemen:

This is in reply to a letter of November 28, 1956, in which you request an interpretation of certain Commission rules.

With reference to Section 3.93 of the Rules which provides that the operator shall be in actual charge of the transmitting apparatus and shall be on duty either at the transmitter location or remote control point, the rule is interpreted to include the antenna system as part of the transmitting apparatus. Therefore, an operator may, for short periods, absent himself from the transmitter building for the purpose of making antenna base current readings. It is expected, however, that the operator will have available a portable receiver or other monitoring device which will permit him to observe aurally the Conelrad key station and the operation of the standard broadcast transmitter during the periods he is not physically present in the transmitter building. This interpretation does not relieve the operator of the requirement of logging appropriate meter readings at the transmitter at 30 minute intervals.

In consideration of the above interpretation, an operator will not be subject to possible revocation or suspension of his operator's license for being absent from the transmitter building for short periods while making readings of antenna base current.

Very truly yours,

  
Mary Jane Morris  
Secretary

JANUARY, 1957

9



*IBEW members help to sell bamboo sprouts and linguica sausage*

## Getting Through to America's Ten Million Foreign Born



**I**BEW members who man the boards at several radio and TV stations across the nation have to be on their toes during part of the broadcast day to keep the hasta-la-vistas from getting mixed with the mousieurs-et-madames and the frauleins and the senoras. Their stations are beaming foreign-language programs to America's 10-million foreign born and 23.6-million children of foreign-born parents. In New York City, some of their number are broadcasting to a half-million Puerto Ricans. In the Southwest and Middle West more IBEW technicians are keeping the tubes warm for the more than 400,000 Mexicans who contract to work on U. S. farms each year.

A recent survey by *The Wall Street Journal* shows that radio and TV programs are going out in 40 languages other than English from U. S. stations. There are about 460 stations in 41 states now devoting part of their time to foreign-language programs.

WHOM of New York City, a station employing members of IBEW Local 1212, now schedules 136 out of its 140 weekly hours on the air for foreign tongues, about doubling its performance of a decade ago.

WFEA of Manchester, N. H., another IBEW-manned station, has boosted its foreign programming from two hours weekly to more than nine hours.

In 1952, WOPA of Oak Park, Ill., outside Chicago, plunged into foreign languages with 10 hours weekly; this has grown to 50 today.

Some stations are carrying several tongues and dialects. New York's WWRL broadcasts in Ukrainian, Greek, Syrian, German, Czech, Russian, Spanish, and Polish. Dial any of 45 stations in Texas, New Mexico, Arizona, Colorado, and

California and catch a commercial aimed at dark-eyed housewives by Quaker Oats. The product plugged is Masa Harina, a quick-mix for tortillos. A lot of Mexicans are migratory farm workers, so Burgermeister beer has evolved a system of "chasing" them as the harvest moves northward, using 13 Arizona and California stations.

A station at Springfield, Mass., has a show in Arabic for Middle Easterners camped around the New England city, *The Wall Street Journal* reports. Basque is beamed at sheep herders in the hills around Boise, Idaho. KDJI, Holbrook, Ariz., beams some strange tongues which aren't foreign at all. Its listening audience hears scripts in Apache, Hopi, and Navajo.

A few television stations, mostly in metropolitan areas where there are large foreign-language groups, have taken up foreign-language programming too. One of the most active is WATV, Newark, N. J., an IBEW-contract installation which covers the New York metropolitan area. It sends out Yiddish, Gaelic, Polish, Spanish, Italian, and German.

Spanish is leading, by far, in the foreign-language totals, with 2,800 hours scheduled weekly, mainly in the West, Southwest, and New York. Italian ranks second with about 450 hours weekly, and Polish comes next with about 390 hours. Both languages are heard mostly in Eastern and Midwestern industrial centers.

Other front-runners are French, heard in the northeast section adjacent to the French-speaking provinces of Canada and in Louisiana for approximately 135 hours a week. German, centered in Wisconsin and Pennsylvania, runs for about 115 hours; Yiddish goes about 102 hours in Eastern metropolitan areas.

Most of the stations carrying the special language shows are finding them of value to their audiences and profitable to their advertisers.

J. G. Paltridge, manager of KROW, an IBEW-manned operation at Oakland, Calif., says, "Radio men used to talk of well-balanced programming, with each station trying to offer something during the week. Now the trend is toward specialization, and it makes sense. It represents an easier way to beat TV."

Some broadcasters are keeping their fingers crossed about these special shows, however. "Any immigrant audience tends to disappear like a drop of white paint mixed slowly into a bucket of black paint," comments *The Wall Street Journal*.

The general manager of the Oak Park, Ill., station says, "We believe foreign-language broadcasting is here for another five or 10 years. Naturally, people belonging to the second and third generations are not good listeners any more.

"Our old people are dying off," is a San Francisco program producer's candid lament.

Last August, one IBEW-contract station—KDAY, Santa Monica, Calif., dropped its foreign-language programs and switched to popular music and English continuity.

Some shows in New York and other cities of highly-diversified populations will continue for many years, however, because they serve a special need. Advertisers have found that the best way to push olive oil is to tag commercials to Italian shows. A Japanese show is just the spot for plugging canned bamboo sprouts. A Portuguese program is likely to promote sales of linguica, a highly-seasoned national sausage.

The station manager of one New York station estimates that it costs from 5 to 10 per cent more to put on a foreign-language show. Edith Dick of WWRL, New York, employs seven translators to handle ad copy and news. Five nights a week, the station puts on a direct hookup to station WITA, in San Juan, Puerto Rico, for a broadcast of island news.

WHOM of New York City records interviews in West Germany with relatives of listeners and puts them on the air with a beer sponsor. WOV puts on a Dorothy Dix sort of broadcast taped in Italy. KLOK, San Jose, Calif., an IBEW-staffed station, uses a taped version of a variety show received from a radio station in Japan.

And so it goes. The air from coast to coast is scrambled with 40 foreign tongues. The shows they represent form an important bridge between the old sod and the new home for the nation's new citizens, and, as we mentioned, they keep the technicians busy. Or as they say in French, "A bien tout, monsieurs et madames."

## ITEMS FROM

# Washington

### FHA Rates and Comment

The Federal Housing Authority recently announced a rise in mortgage rates, and its public relations office couched the official announcement in such flim-flam language that *The AFL-CIO News* was moved to comment:

"The casual reader of the government statement should have been moved to tears of appreciation by the FHA's alleged effort to make it "easier" for him to buy a house.

"Except that is wasn't so.

"The rise in interest rates, as Chairman Bates of the AFL-CIO Housing Committee quickly pointed out, will mean an increase of some \$1,100 in the amount a householder pays in interest over the length of a 30-year mortgage.

"The interest deal was a windfall for the bankers and mortgage brokers, who have been doing very well without this little extra help.

"The FHA announcement means simply that more families will be priced out of the market, and others will have to pay more to finance their home-buying.

"No break for the public in that action by our government!"

### Social Security Hike

Social security taxes go up this month for some 69,500,000 Americans covered by the old age and survivors insurance plan. The rate for covered workers and their employers will rise from 2 per cent on each to 2¼ per cent on each, or from a total of 4 per cent to 4½ per cent. This is estimated to apply to about 63,000,000 persons over the course of the year 1957.

For about 6,500,000 self-employed persons covered by old age and survivors insurance the rate goes up from 3 per cent to 3¾ per cent.

The taxes apply on the first \$4,200 of annual income.

The tax increase was voted by Congress to meet anticipated costs of the new program providing disability cash benefits at age 50 for qualified workers.

## PERSON TO PERSON

*Continued from page 5*

asked with Murrow and Aaron and Zousmer, the producers. The persons who are to be interviewed do not memorize answers, for the questions cannot come exactly in sequence, and Murrow interviews in a spontaneous, conversational manner. The 24 questions prepared in advance are primarily to guide the interview and keep salient points of interest to the fore.

On the day of the program, after all equipment was installed, Horn and Hill read the questions in sequence as they "walk through" the interview. At 7 p. m. there was a camera rehearsal, with the subjects already in make-up. Horn read the questions through again.

At 9:45 facts were coordinated with Studio 41 in New York. Murrow saw monitor shots of the camera set-ups, and he chatted with the hosts, as technicians checked sound and picture.

The producers of "Person to Person" are keenly aware that they are invading a private home with large quantities of equipment and men. They say with pride that they leave the guest's home in the same condition they found it. Care is taken by everyone concerned not to deface the walls or furniture. Drop cloths are placed on all the floors to protect the rugs and floor finish.

Everyone is anxious to break down and get home after a long day of work. "Person to Person" crews have found this especially true of the A. T. & T. people. After each broadcast Murrow comes back to the guest for a personal word and goodnight. A. T. & T. assumes it is all over at 11:00 p.m. sharp and knocks down all the lines. On the program from the French Embassy they were especially prompt in pulling the lines. The Ambassador and Mrs. Alphanth were asked to go outside to the truck to talk to Mr. Murrow on the P. L. telephone.

Quite some time afterward, a weary crew made its departure from French soil and returned to the United States. Voila!

### Local Law Faces Test

A Supreme Court test of an anti-union ordinance passed by a number of Southern communities was assured this week. The top court agreed to pass upon appeal from an ordinance enacted by Baxley, Ga., which imposes a license fee of \$2,000 a year on each union organizer and \$500 for each member signed up.

Other cities have put through similar laws which have the effect, by prohibitive license fees, of outlawing union organizations completely.

The test in the Baxley case was brought by Miss Rose Staub, organizer for the International Ladies Garment Workers. She refused to pay the license fee and was sentenced to 30 days in jail, plus a \$300 fine. The Georgia Supreme Court affirmed the conviction and then she appealed.

Union attorneys, in a brief filed with the U. S. top court, contended that the ordinance violated constitutional guarantees of free speech, free press and peaceable assembly, as well as the legal right to organize for collective bargaining.

—From *LABOR*, January 19

### The Color Market

A recent market survey in the Milwaukee area discloses that, of 302,400 families queried, 46.3 per cent are simply not interested in buying a color television set.

32.8 per cent would be, except for price and technical objections. Only 19.7 per cent are actually interested, but even these can't see their way clear for the next several years. Only .3 per cent actually own color TV now.

Of the 32.8 per cent whom would buy "if", 19.2 per cent balk at the present price; 4.4 per cent say it isn't in their budget yet; 6 per cent want the color improved; 2.2 per cent object to the price and color quality; .7 per cent want repair costs lowered and .3 per cent say there are not enough color programs available yet to justify buying a color set.

### Anti-Corona Socket

A 9-pin electronic tube socket that protects against high-voltage corona in miniaturized equipment such as portable television receivers has been developed by Sylvania Electric Products Inc.

The miniature socket, which will be available early in 1957, contains a deep reinforced skirt, or well, and can be mounted on the top or bottom of a chassis. The skirt extends far enough beyond the terminals to protect against the presence of high-voltage corona.

The over-all height of the socket is one and eleven-sixteenth inches with a body diameter of one and three-fourth inches. Provision has been made in the insulator for ready insertion of a shield ring or center shield. The insulator is of white urea, the contacts of cadmium plated brass.

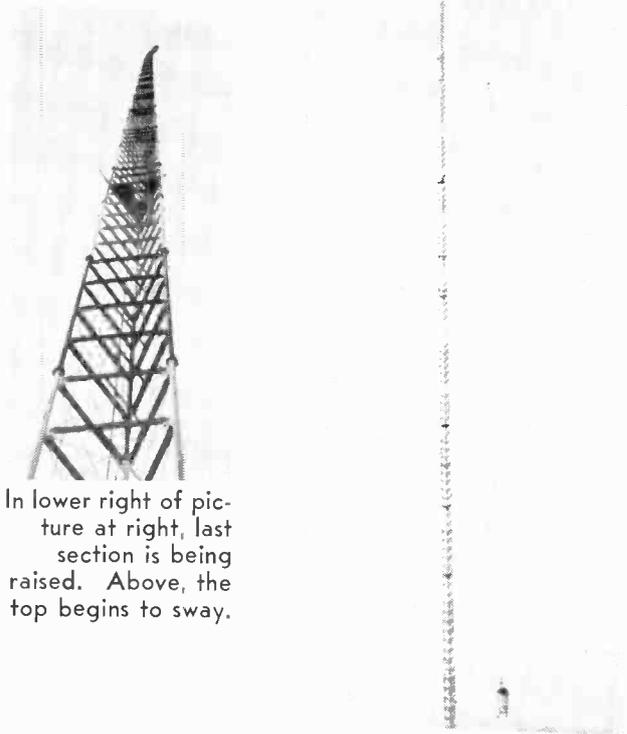
# An Unexpected Blow Topples Midwest Tower

**C**ONSTRUCTION started October 20 on a new 1,250-foot television tower for Station WMT-TV, Cedar Rapids, Iowa. Of Ideco manufacture, the tower was to be the finest in the area.

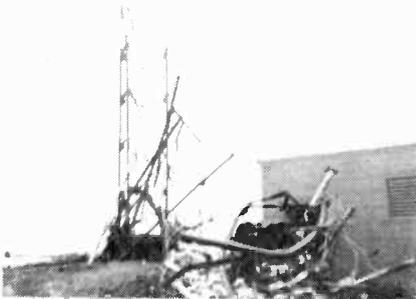
The station staff began preparing to move its transmitter to the new site and go on the air from there Monday, December 17.

Darkness caught the construction crew without guys in place, as the last section of the tower was being raised. Permanent guys were in place every 250 feet to the 1,000-foot level. Temporary guys were up to the 1,120-foot level. The top 130 feet were unguyed. All that remained was to fasten the guys and raise the 101-foot antenna, which was assembled and resting on the ground at the base of the tower.

Then the winds began to blow in 55 mph gusts. At 1:18 p. m. Monday, December 10, it all came atumblin' down. The antenna was a complete loss, and the transmitter building was a near-miss.

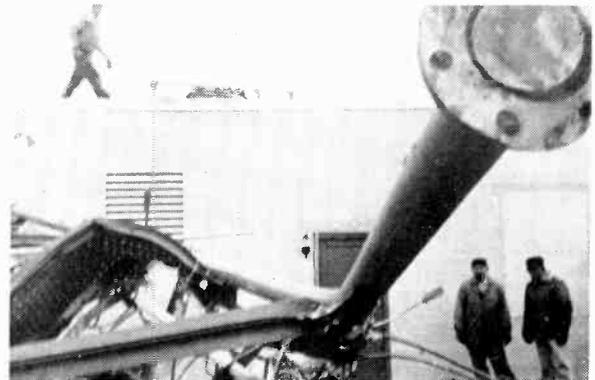


In lower right of picture at right, last section is being raised. Above, the top begins to sway.

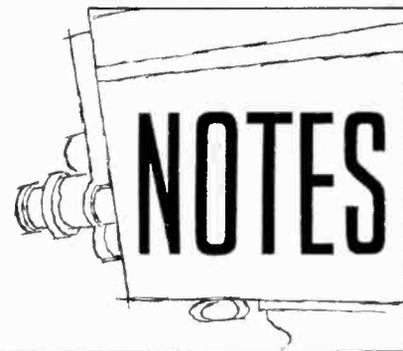


As can be seen by the picture above, the crashing tower narrowly missed the transmitter building as it came careening down. The antenna, which had not yet been raised, was a complete loss.

Bolts and rivets were sheared off as the giant framework was torn from its foundation. Five month's work became a tangled wreckage in a few minutes.



A job for a wrecking crew is this mass of twisted metal which was to have been a 1,250-foot television tower—tallest in the region. Two workmen plan the job of salvage.



## Videotape Research

A future full of advancement in electronics was foreseen by Phillip L. Gundy, vice president of Ampex Corporation, when he recently announced the beginning of a cooperative long-range research program between Ampex Corporation and the famed Stanford Research Institute.

"With Videotape recording a reality, on view every evening to West Coast audiences, we find that we are only at the beginning of the revolution which will come about as the result of this remarkable development," Gundy said. "In order to look far into the future, to make the most of the possibilities before us, we began this month with Stanford Research Institute a research program aimed at exploring both theoretical and applied aspects of Videotape recording."

Ampex emphasized that the new recorder, while designed in the first place to free the television networks from the limitations of fast film program delay, has many other possible uses. Since the machine has burst through the limits of previous recording apparatus in its ability to store vast quantities of electrical information, the possibilities ahead are enormous.

Gundy told a little story, in visualizing the tremendous information capacity of the recorder. In the laboratory one weekend recently, a group of engineers let their imagination run free, and connected an ordinary radio receiving antenna to the recorder's "in" plug. They amplified and recorded the electrical impulses pulled in from everywhere through the antenna, then rewound the tape, and played back the recording. And there it all was! A radio receiver connected to the recorder could be tuned among all the stations which were on the air during the recording. "Imagine!" said Gundy. "They had simultaneously recorded everything that was on the air then, so that all or any part of it could be played back any time later. And yet they used much less than half of the machine's ability to record information!"

In recognition of the new relation with Stanford Research, Gundy said "Scientific progress nowadays depends on team effort. Stanford Research Institute has gathered together a team of scientists and engineers whose total knowledge far exceeds that which any one man could ever have. Combining their experience with that of the Ampex video engineering team, the two organizations cross-fertilizing each other's ideas, we see a real chance to multiply our knowledge of wide-band recording."

## TV Test Signal Study

The FCC is considering adopting a standard test signal for television stations and recently authorized the use of test signals by TV outlets during program time without specific authority as a means of acquiring data for use in comments when proposed rule making is issued.

The Commission warned stations which carry the patterns that the test signals should not interfere with sync pulses or degrade picture quality. This special blanket authority extended to January 15, 1957, and stations using this authority were asked to notify the Commission.

## Round Glass Color Tube

The RCA color television picture tube will soon be produced with an all-glass, as well as metal envelope for home color television receivers, D. Y. Smith, vice president and general manager, RCA Tube Division, has announced.

"A new round all-glass bulb and a new technique of glass sealing have been developed," said Mr. Smith, "by glass manufacturers with the cooperation of the Engineering Group at RCA's Lancaster, Pa., plant. The tube has the same excellent performance in the glass envelope as it does in the metal envelope. The price will be the same.

"Using the same successful design of internal assemblies, including the aperture mask and the

three-gun mount, RCA expects to start producing the all-glass bulb version of its color television picture tube some time during the middle of 1957. Both metal and glass versions will be made available thereafter to the industry."

One of the problems solved in development of the new glass envelope was the assembly of its two sections. This was accomplished by sealing the halves together with a unique glass flux which first melts at a relatively low temperature and then, when cooled, becomes as much a part of the bulb as the original glass.

### 300 Service Clinics

Approximately 300 services clinics to demonstrate the new Sylvania S-110 television chassis will be held throughout the country starting January 21, it was announced by E. W. Merriam, service manager of Sylvania's Radio and Television Division.

The clinics will be held in cooperation with Sylvania distributors, with several clinics scheduled in each franchised territory. The clinics will be conducted by Sylvania district service managers assisted by distributor service personnel who have attended factory-sponsored clinics on the new chassis.

The S-110 chassis was designed and built by Sylvania to use the company's new 110-degree magnetic deflection TV picture tube. Sylvania was the first manufacturer to introduce new 110-degree receivers. Factory delivery on the new sets started last week.

Mr. Merriam estimated that approximately 10,000 servicemen, including dealer servicemen and independents, will attend the meetings. Distributors are being urged to conduct clinics in conjunction with service organization meetings so that instruction on the S-110 chassis can reach as many servicemen as possible.

"We plan to hold a clinic in the headquarters community of each distributor and in every major city in his area," Mr. Merriam said. "Service material on the new S-110 chassis will be distributed at each meeting and a complete slide presentation and chassis discussion is planned.

"The S-110 was designed with the serviceman in mind. From its very conception, our service department worked closely with designers and engineers so that we have developed a chassis that will be 'easy' to service in the parlance of the serviceman."

Mr. Merriam said Sylvania was anxious to have as many servicemen as possible attend the clinics

"because we feel the S-110 represents a major advance in TV chassis design."

In addition to the new TV chassis, a service discussion of the new Sylvania "Thunderbird" all-transistor portable radio is scheduled for the clinics.

### Striped Magnetic Sound

The first practical use of striped magnetic sound recording techniques to provide viewers with the equivalent of "live" sound quality has been introduced by CBS News in recent broadcasts. Increased use of this new sound recording technique is planned for all phases of the CBS News Operation.

Recently, newsworthy personalities dealing with the Middle East situation have been covered by CBS News motion picture cameras employing striped magnetic sound. The film material, released on the "Douglas Edwards With the News" show, clearly demonstrated the greatly improved sound quality.

CBS News began an engineering program about a year ago to evaluate the potential of striped magnetic sound in news motion picture production because it recognized the quality shortcomings of the photographic single system production in which the photographic sound track is on the same film negative as the picture.

The end result of this program—with the cooperation of equipment manufacturers, motion picture film suppliers and magnetic film suppliers—has been the first practical use of high quality, striped magnetic sound.

The use of magnetic sound in single-system production requires the application of the magnetic material on the photographic material without introducing any adverse effects on the film. The magnetic striped film is then utilized in a 16mm motion picture camera which has been equipped with a magnetic sound recording system and then combined photographic picture and magnetic sound record are processed in conventional laboratory developing equipment and reproduced on projection equipment designed to operate with magnetic sound. Additional copies or prints of the original camera material are produced in the conventional manner for the picture and the magnetic sound is recorded or electrically printed.

The use of striped magnetic sound, in addition to producing improved sound quality, provides operational advantages in the ability to monitor sound records as they are made and the simplification of the recording equipment required.

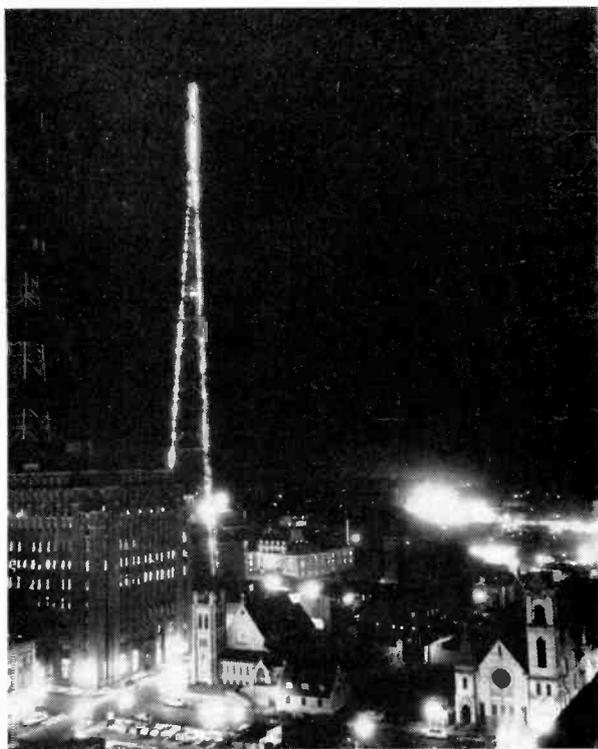
# Station

# Breaks

## CBS Labor Addition

William C. Fitts, Jr., vice president in charge of labor relations for CBS, has announced the appointment of James F. Sirmons, manager of the CBS Radio network operations department, to the labor relations department of CBS, Inc. In his new post, Sirmons replaces Fred Ruegg, who has been transferred to the West Coast to manage CBS-owned KNX, Hollywood, and the Columbia Pacific Radio Network.

## KRNT-TV Tower 'Tree'



Station KRNT-TV, Des Moines, Iowa, where IBEW members are employed, wished its listeners a Merry Christmas in a novel manner. The station used its TV tower as a 709-foot-high Christmas tree. Two IBEW electricians spent six days completely "trimming the tree," using 4,000 feet of cable. The 460 forty-watt bulbs used drew more than 16,000 watts of power each time the tree was lit. (Photo courtesy Graham Jeambey of KRNT-TV and Harold J. Becker.)

## KDAY Boosts Power

KDAY, Santa Monica, Calif., which employs members of IBEW Local 45, recently received FCC authority to boost its power to 50 kw. The station is seeking full-time operation on its 1580 kc spot.

## FCC Report Is Ready

The 22nd Annual Report of the Federal Communications Commission, for the fiscal year 1956, is now available. IBEW members wishing copies can obtain same by sending 50 cents to the Superintendent of Documents, Government Printing Office, Washington, D. C.

## TV for the Troops

The first strictly American television programs in Europe probably will go on the air about the end of March, U. S. Air Force officials said.

Two ultra-high frequency TV stations, with a 10-mile radius, now are under construction at Landstuhl and Spangdahlem air bases near Wiesbaden, Germany.

Air Force post exchanges have brought in supplies of TV receivers, but have not yet put them on sale, in view of the USAF warning that only experience will show just which areas can pick up the programs.

The transmitters are expected to serve several American Air Force and Army installations in the Landstuhl and Spangdahlem areas. Most of the programs will be kinescoped versions of programs shown in the U. S.

Since the programs will be carried on UHF and at American speeds and lineage standards, few German TV-owners will be able to pick them up.