RADIO, TV and RECORDING

LECHNICION-

ENGINEER NOVEMBER, 1956



TECHNICIANENGINEER

VOLUME 5 17 NUMBER 11

PRINTED ON UNION MADE PAPER

The INTERNATIONAL BROTHERHOOD of ELECTRICAL WORKERS

GORDON M. FREEMAN JOSEPH D. KEENAN FRED B. IRWIN International President International Secretary International Treasurer

ALBERT O. HARDY

Editor, Technician-Engineer

... in this issue

commentary

Radio Station WTTM—A Union-	
Staffed Operation in New Jersey	3
Our Atomic Dilemma Employer's Letter Shows Union- Busting Tactics	6
	7
Remote-Control Comments to the FCC; More Material for a	
Month-by-Month Dozier	8
Technical Notes	14
Station Breaks	16

. . . the cover

Jack Gartland, news editor for Radio Station WTTM, Trenton, N. J., edits tape for a regular broadcast of "The Delaware Valley Review." Johnny Schneider, an account executive, discusses his spot in the upcoming broadcast. Both men are members of IBEW Local 1343, a veteran organzation among IBEW broadcasting unions.

WTTM advertises the fact that it is "the only union-staffed radio station in Trenton and the Delaware Valley." Begun 15 years ago, it is owned and operated by Peoples Broadcasting Corporation. It devotes much of its broadcast time to public service programs. For more on this enterprising station operation, see the feature story beginning on Page 3 of this issue.

Labor will have its work cut out for it next year when the majority of state legislatures hold their sessions.

In the November 6 elections, labor-endorsed candidates scored notable, and in some cases decisive, gains in the battle for control of the state law-making bodies. These were offset, however, by losses in other areas.

The results of the elections of state legislators, just becoming known, indicate that, for the nation as a whole, there has been relatively little change in the balance of power.

Two referendums were held on the "right-to-work" issue. The attempt to extend the union-shop ban to Washington went down to defeat by an over-whelming margin, but the effort to repeal it in Nevada lost by 6,000 votes.

The vote for members of state legislatures followed no clear-cut pattern and produced many upsets. Each of the major parties scored gains in some states and suffered setbacks in others. Strangely, Democrats sometimes made gains even in states where they ran weakest in the presidential and congressional contests.

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:

September, 1956—117.1 September, 1955—114.9

Published monthly by the International Brotherhood of Electrical Workers, AFL-CIO, 1200 Fifteenth St., N. W., Washington, D. C., for the men and women in the recording, radio and television industries. Entered February 20, 1952, as second-class matter at Washington, D. C., under Act of August 24, 1912. Subscription Price: U. S. and Canada, \$2 per year, in advance.



TOM DURAND, left, moderates "School Scoops" as high school students interview a Congressional candidate.

Radio Station WTTM

... A union-staffed operation devoted to community service

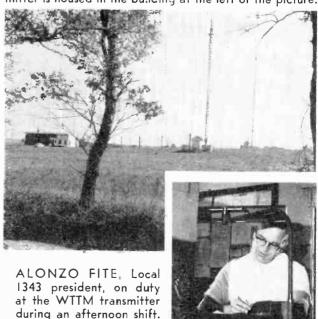
FROM the palatial estates of Bucks County to the 60 x 120-foot plots of Levittown and Mercerville, Radio Station WTTM runs the gamut in its listening audience. There are an estimated 64,000 trade unionists within its signal pattern, serving approximately 340 industries. Likewise, there are some of the most prosperous stockholders and coupon clippers south of Manhattan.

To bring a full daily schedule of public service and entertainment to *all* of its listeners, WTTM, an NBC affiliate, has come up with some enterprising programs.

But what makes its activities somewhat unique among broadcasting stations is its sincere desire to let its listeners know that it is the only radio station in Trenton and the Delaware Valley with a union staff.

In recent advertisements in three local newspapers and in handbills, WTTM has let the public know that its employes are ably represented by IBEW Local 1343. Twenty-one out of a total of 26 WTTM employes are IBEW members. This includes Station Manager Fred Walker, who began as a card-carrying announcer and has re-

TOWER SITE—High on an open and wind-swept hill in Bucks County, Pennsylvania, stand the three towers which make up the WTTM antenna array. The station transmitter is housed in the building at the left of the picture.



NOVEMBER, 1956



THE RECORD LIBRARY of the station is well stocked. Here, Bern Penrose, announcer, picks a disc.



IN THE CONTROL ROOM, Chief Engineer Chet Sunderland and Tom Hutchinson watch the board.



A TURNTABLE is installed in the record library by Sunderland and Don Dewsnap, a fellow engineer.

mained active because of his own convictions and those of his parent company.

The history of Local 1343 goes back 18 years to the establishment of the station. Just about every member of the staff has served at some time in a local union office. Ernie Kovacs, the NBC personality, was a Local 1343 president, when he was a station announcer. Jack Barry of network fame is a former member of the local.

Current officers include: Alonzo Fite, president; William Betz, vice president; Tom Hutchinson, secretary, and Richard Burns, treasurer.

The station is owned and operated by Peoples Broadcasting Corporation, a subsidiary of Farm Bureau Insurance Companies. The philosophy of mutual cooperation which permeates all Farm Bureau enterprises stimulates the good labor-management relationship at WTTM. The IBEW won an election for the entire bargaining unit 18 years ago and has served the employes well since that time. Eight stäffers are members of the station's ten-year club.

Last May the station moved into new and modern studios on Brunswick Avenue at Lake Drive. In real bustin'-out ceremonies, the ribbon was cut by a stream of molten iron from a "thermic bomb reaction," designed by a Princeton nuclear scientist, while eight jet planes from a nearby air base flew overhead and the national guard fired a salute.

But all is not pomp and circumstance at WTTM. "We're not in business just to make money," Station Manager Walker is quoted. "We're here to serve the public. Give the public what they want and need and they'll listen."

These are some of the ways in which WTTM achieves this objective:

• When heavy snows and storms shut down local schools, WTTM begins broadcasting announcements of all public and private school clos-

ings at 6:30 a. m. and continues past the regular school opening time. A special code system has been worked out by the radio station with the schools involved, so that no pranksters may interfere with the efficient operation of this special service program.

• The station's public service slant on things goes into its news programming, which is extensive and polished. There are 16 newscasts a day. One of the most popular is "The Delaware Valley Review"—perhaps the only daily 25-minute program of local news in the country. Using tape recordings and telephone "beepers," the news staff offers a varied but exciting coverage of local events.

WTTM scored an important "first" shortly after Governor Robert Meyner took office in 1953. While he was campaigning, the station broadcast his news conferences, and after his inauguration, Meyner agreed to tape-record all his news conference, using state-owned recording equipment installed by his predecessor but never used.

The governor agreed to leave the recorder run-



THE WTTM MOBILE UNIT is a valuable addition to the station programming, covering special events.

ning, even when the questions got tough, except for the rare occasions when he wanted to go off the record. WTTM gets the original recordings the minute the news conference ends. Highlights of these off-the-cuff sessions between the chief executive and the state's top newsmen are broadcast on subsequent station newscasts and on "The Delaware Valley Review."

• News coverage became disaster service in August, 1955, when a hurricane tore through the area and devastating floods swept down the Delaware Valley. WTTM went on 24 hours a day until the emergency was over.

During those nights and early morning hours which spelled terror and uncertainty to many, WTTM suspended all regular programming. The news staff worked around the clock, keeping in telephone or ham radio contact with danger points. For many persons marooned by high waters radio was their only link with the outside.

- This year, WTTM won an award for public service in another category. It was one of two commercial radio stations in the nation to receive an Alfred P. Sloan Award for public service in promoting traffic safety. WTTM was cited "for the impressive volume of traffic safety coverage" embraced in its 36-hour weekend program, "Highway Cavalcade—1955," broadcast from May 23 to September 11. In a format resembling NBC's "Monitor," the station used a large number of safety spots throughout the summer.
- Twenty-six area high schools cooperate in the production of Nationwide Insurance's "School Scoops." Now beginning its sixth year at the station, the program has won many national awards, including special recognition from the Ohio State University's Institute for Education by Radio and Television. Tom Durand, program di
 Continued on page 13



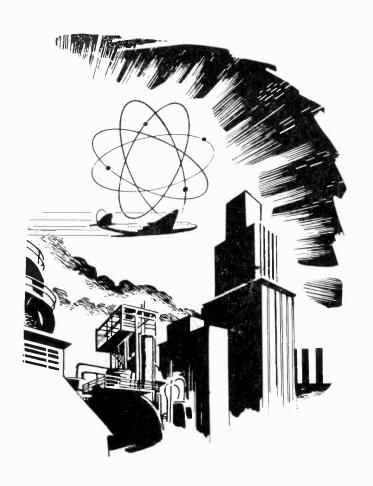
GOVERNOR ROBERT B. NEWNER of New Jersey is interviewed by Fred Walker at the recent state fair.



IBEW REPRESENTATIVE Russell Lighty is greeted at the entrance by Station Manager Fred Walker.



LABOR TALKS IT OVER—WITM's Director of News and Special Events, Joe Ayeres, left, moderates the station's award-winning panel discussion of labor problems. This show is now in its fifth year of service to listeners.



Our ATOMIC Dilemma

Our nation is being left behind in the race for atomic-generated electric power, as the public versus private power battle bogs down on Capitol Hill in Washington

REPRINTED FROM THE QUALIFIED CONTRACTOR, SEPTEMBER, 1956

In the closing days of the 84th Congress The House killed the Gore bill to authorize the building of several large-scale nuclear reactors for generation of electric power. This action and the issues involved are of very great importance to the electrical industry and to electrical contractors. The future development of the industry is vitally affected.

Britain is moving ahead rapidly with the development and building of nuclear power reactors. The British Central Electricity Authority is at the point of ordering several full-scale nuclear power plants on the Calder Hall model. British experts say that they will be competitive with coal. Note that this statement refers to being competitive with coal in Great Britain where electric power costs about six mills per kwh to produce. Coal reserves there are approaching exhaustion.

A very different situation prevails in the United States where coal is plentiful and the most modern plants produce electricity at three mills per kwh.

Advocates of the defeated Gore bill declared that government must step in to assist and subsidize atomic power development so that we can maintain the pace being set by Britain and particularly Russia. The suggestion is made that we are "falling behind in atomic power development." This is a situation that lends itself well to exploitation by the public power advocates.

On the other hand, there is the position that the United States is not lagging because technology in this field is moving ahead so rapidly that any considerable construction of full-scale plants would result in freezing development at present levels. Huge investments would be made in plants absolete before they were started. Might it not be better to keep abreast of technology in the laboratory or in pilot models so that when the economics of the situation indicated full-scale plant construction we would have access to the very latest experience and plans?

Plain economics would seem to indicate that if one could ignore the danger of being outdeveloped in other areas of the world, the best policy for the United States would be to drift along, experimenting to get the very latest type reactors and not doing actual building until design would result in cutting costs below three mills per kwh.

But pressure from outside the United States is not permitting such complacency. Spurring government to act are some important manufacturers who need to sell these products so as to become competitive with foreign manufacturers.

Chairman Strauss of the Atomic Energy Commission and the Administration generally oppose extention of public power. They threw their weight along with privately-owned utilities to defeat the Gore bill.

It is possible that electricity produced by publicly-owned nuclear reactors might be sold very low. The price could be set by politics as well as economics under such conditions. Over the long term it is believed that the cost of atomic-generated electricity will be very low. This will force all electric rates down, and could well place

the high cost conventional plants now owned by private interests in an embarrassing rate position.

This is the basis of the vigorous private utility opposition to public development of nuclear generating power. Such development could have a most serious threat to private investment.

Utility interests have suggested a compromise plan in which the United States government would finance atomic power plants in foreign countries where fossil fuel is expensive, thus making atomic plants economically sound. This would give the U. S. manufacturers a chance to develop and sell their reactors, thus constantly improving their product.

What is said and done on this subject in the months ahead should be weighed in light of these basic facts.

Employer's Letter Shows Union-Busting Tactics

Workers Told IBEW Organizers Only "After Money-Your Money"

SEVERAL months ago the IBEW, at the request of the employes, launched an organizing drive at the Cornell-Dubilier Electric Corporation plant in Sanford, N. C.

Ultimately, the National Labor Relations Board ordered an election, and the Brotherhood, on the basis of cards signed by the workers, had high hopes of winning.

Then on the eve of the voting, the corporation's president, Octave Blake, sent a nine-page letter to all employes, calling upon them to reject the union.

As the Railway Brotherhoods' newspaper Labor, comments, the letter was jampacked with misstatements, distortions, anti-union propaganda—and even with a vicious resort to race bias, as a means of inflaming emotions against the Brotherhood.

Employees were told that the IBEW organizers are only "after money—your money" in union dues and that their take-home pay would be reduced by the amount of the dues.

The letter also raised the scare that the union would be "pulling you out on strike" and that the union would bring "nothing except trouble and misery, debt and regret."

Another scare was that the Brotherhood would seek to "tear down" the state's so-called "right to work" law which prohibits union shop agreements and then "force working people to join and pay dues to unions."

The worst feature of the letter was a naked ap-

peal to race prejudice. Though the Brotherhood had made it crystal clear it was taking no position on the matter of segregation, the management claimed that "unions are working day and night, and pouring out the money which they collect in dues, in an effort to eliminate segregation and bring about integration in the schools and elsewhere between the white and colored people as rapidly as possible."

The letter further charged that "the AFL-CIO at its recent convention took \$75,000 of the dues paid to it by its members and gave this money to the National Association for the Advancement of Colored People."

That was completely false. The AFL-CIO at its merger convention last December did not vote any contribution to the NAACP nor did it do so at any other convention.

Nevertheless, this and other falsehoods had their effect, and the IBEW lost the election by a narrow margin. The Brotherhood has filed objections with the NLRB over the company's tactics.

"All in all, what the Cornell-Dubilier Corporation did in this instance is a warning of what to expect from employers in the present atmosphere under the Taft-Hartley Act," International Secretary Joseph D. Keenan of the Brotherhood has declared.

"In the old days, under the Wagner Act, such tactics would have been grounds for voiding the election. Now, they're sustained as merely 'an exercise of free speech."

The Remote Control Battle Continues

NARTB Files 'Reply Comments' Largely New Material

IBEW Prediction Confirmed by Voluminous Document Filed in Disregard of Brotherhood Protest and Procedural Rules of Commission

THE recent extension granted the National Association of Radio and Television Broadcasters by the Federal Communications Commission for filing its Reply Comments was culminated by a 118-page document which the Association delivered to the FCC on October 22, 1956. The IBEW's prognostication that the NARTB would file new material rather than confine itself to the issues in a proper manner was fully confirmed by the content of the document. (See the TECHNICIAN-ENGINEER, pages 4, 5, and 6, September, 1956, issue.)

The Reply Comments of the Association constitute a desperate, last-minute hysterical attempt to snow under the shoddy presentation to the Commission of the Association's original Petition. The Reply Comments are also significantly apologetic in the sense that they admit that two of the 50 kw stations which were involved in the high-power experiments completely failed as examples of the feasibility of remote control. In the case of WSB, the Association states that "It now appears that the presence of a first-class ticket holder is an important factor in maintaining Station WSB's excellent operational record."

Much the same paralogism is evident in the new statement of the case at KIRO:

"The same exhibit discloses that the experimental operation of Station KIRO did not produce sufficient evidence in order to justify remote control operation. It should be pointed out, however, that the operation at Station KIRO was experimental in nature and it is believed that further

experimentation would have corrected the reported malfunctions."

The statements (above) regarding the new position of the Petitioner as to WSB and KIRO are prefaced by the flagrant inconsistency of the following:

"NABET in its comments mentioned two unidentified examples of 50 kw stations whose operation required the attendance of a first-class licensed operator to correct transmitter malfunctions and thus to prevent excessive outages. IBEW listed some 32 broadcast stations, including 19 50 kw stations, that have had excellent outage records, and alleges that this result was due to the presence of the first-class operator. The Association does not feel that this evidence, alone, is particularly persuasive. However, the Association, as a result of further experimental operations, has come to two conclusions relative to high power stations: First, these stations, because of the greater engineering complexity of the transmitters and their wider coverage, should be treated differently than low power stations. Second, it has been found that a few high power transmitters, in their present condition, do not show sufficient reliability to permit unattended operations. . . . ?

An element of sarcasm may possibly be detected in the inclusion of a reference to "the opponents" (to the NARTB's Petition); in any event, the Comments of the Association also include the following statement:

"The Commission, the Association, broadcasters and, it is believed, the opponents have one princi-

pal objective in mind—that is, to furnish a better service to the public. Apparently, the main argument of the opponents is that this objective will be defeated because of the possibility that excessive outage time will result from an unattended operation of high power stations. While the Association believes that this fear is unjustified, it is willing to agree to any reasonable regulators that will insure that such a condition will not result. Such agreement is based on the premises that all reasonable safeguards would voluntarily be taken by the liecnsee whether or not they were made a Commission requirement. For these reasons, the Association and its members have no objection to a modification of the proposed amendments of the Commission's Rules to formally achieve this objective. It is suggested, therefore, that authorizations of remote control operation for stations, operating with power in excess of 10 kw, be granted on a case-by-case basis and only upon the following conditions:

- "(a) That the station be required to install an auxiliary transmitter, with power of 5 kw or greater, capable of being activated from the remote point; and
- "(b) That the station be required to make a reasonable showing of the reliability of the principal transmitter."

A further amendment to its original Petition is evident in the further "Reply Comment":

"In order to determine what stations are acceptable for remote control authorization, a 'yardstick' should be adopted by the Commission by which an individual station application may be evaluated. These evaluation rules must be rigid enough to exclude those stations whose equipment would be considered unreliable but flexible enough to include those stations whose equipment, by virtue of past maintenance practices, has shown a satisfactory performance record. To achieve this purpose, the Commission should require that the following information be submitted with the remote control application:

- "(a) An analysis of the transmitter logs for the 12-month period immediately prior to the application. This analysis should include such items as: (1) Number of outages, cause and duration; (2) Consistency of specific outages and whether corrective measures can be or were taken to remedy further difficulties; and (3) Effect of outages on program service.
- "(b) An analysis of the maintenance logs and records for the 12-month period immediately prior to the application. This analysis should include such items as: (1) Type and consistency of main-

tenance performed; and (2) Maintenance practices and policies adopted."

These amendments can be taken to be quite significant—they at least indicate that some progress has been made by "the opponents" of the Petition. The contradictions evident between the original Petition and the present "Reply Comments" are further indications of progress toward accuracy, to say the least. The original petition said, "It is considered that this information is representative of the possibilities of remote control for all classes of broadcast transmitters and that, in relation to higher power transmitters, the automatic sequencing and protective devices which are already incorporated in this equipment would make such operation of high power transmitters just as feasible, if not more so, than low power transmitters."

The Petitioner now says that as the result of further experimental operations it has come to two (new) conclusions: "First, these stations, because of the greater engineering complexity of the transmitters and their wider coverage should be treated differently than low power stations. Second, it has been found that a few high power transmitters, in their present condition, do not show sufficient reliability to permit unattended operation."

Only one further observation will be made here as to the latest case presented by the Association. It will probably come as quite a surprise to labor negotiators in the broadcasting field to know that the NARTB has now stated that "... the facts show that it is the larger stations that are now feeling he economic pinch ..." and that, in contrast to the 1953 Petition of the Association, "these stations are subject to the same economic difficulties as are the non-directional stations now authorized to operate with remote control. The same conclusion is applicable to both. Fairness requires that they be treated equally once all engineering objections have been removed."

Bearing most directly upon arguments in negotiations is the further statement which is now made that "The major portion of the competition to the small radio station does not come from the large radio station—rather, it comes from other competing media. Probably the most direct competitor is the small-town newspaper. . . The large and small stations generally appeal to a different audience and, thus, attract a different type of advertisers. In any event, large stations are only one of many competitors faced by the low power stations. Therefore, authorization of remote control operations for high power stations will materially affect the economic status of the low power stations."

BEFORE THE FEDERAL COMMUNICATIONS COMMISSION Washington 25, D. C.

DOCKET NO. 11677

In the Matter of Amendment of Sections 3.66, 3.274 and 3,572 of Commission's Rules and Regulations Relating to Remote Control Operation of Certain Standard FM and Non-Commercial Educational FM Broadcast stations.

Application for Leave to File Pleading

The International Brotherhood of Electrical Workers (IBEW) hereby respectfully applies for leave to file the within and annexed Motion to Strike Reply Comments of NARTB and Renewal of Motion to Dismiss.

Good and sufficient cause for consideration of the within Motion appears from the character of the "Reply Comments" filed herein by NARTB. An inspection of the "Reply Comments" shows that they have been filed in complete disregard of the orderly procedure contemplated by the Commission's Notice of Proposed Rule Making and its orders granting extensions of time. The NARTB "Reply Comments," as is more fully explained in the annexed Motion, attempt to make basic changes in the issues presented by the Commission's Notice. They purport to amend the Petition in substantial respects at the reply stage of the proceeding. Furthermore, they do not constitute a Reply but rather amount to new material not cognizable at this stage of the proceeding.

All persons affected by the proposed Rule Making are entitled, as a matter of constitutional and statutory right, to the procedural safeguards of due process. The "Reply Comments" of the Association are not consistent either with such procedural requirements or the procedural requirements established by the Commission.

Respectfully submitted.

Louis Sherman,

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

BEFORE THE FEDERAL COMMUNICATIONS COMMISSION Washington 25, D. C. DOCKET NO. 11677

In the Matter of Amendments of Sections 3.66, 3.274 and 3.572 of the Commission's Rules and Regulations Relating to Remote Control Operation of Certain Standard FM and Non-Commercial Educational FM Broadcasting Stations.

Motion to Strike Reply Comments of NARTB and Renewal of Motion to Dismiss

The International Brotherhood of Electrical Workers (IBEW) hereby files its Motion to Strike Reply Comments of the National Association of Radio and Television Broadcasters (NARTB) and renews the motion to dismiss incorporated in the IBEW Comments herein filed July 27, 1956.

1. History of the Instant Proceedings

The original petition for the institution of rule making proceedings herein was filed by NARTB on February 15, 1956. The petition proposed amendments to existing rules to authorize remote control operation of broadcast stations with directional antennae and/or with power in excess of 10 KW. On April 12, 1956, the Commission released its Notice of Proposed Rule Making and specifically invited comments on the question, among others, as to whether in the event the proposed amendments were adopted, each proposal for remote operation with a directional array should be accompanied by a sworn statement of a competent engineer describing the operational stability of the array and including weekly monitoring point readings for one year prior to the submission of the data together with certain other data calculated to inform the Commission as to the stability of the array.

Thereafter, on July 27, 1956, IBEW filed its Comments on the Petition. No comments were directed to the specific questions set forth in the Commission Notice in view of the IBEW position that the petition did not make out a prima facie case to warrant further rule making proceedings and should be dismissed forthwith. Essentially, the IBEW Comments pointed out that the material submitted by the NARTB was either irrelevant (Ex. 2, Ex. 4, Ex. 6, Ex. 8, Ex. 9), unconvincing (Ex. 1, Ex. 3, Ex. 7), or hearsay (Ex. 5), and, in any event, utterly lacking in proof to support the petition.

On August 20, 1956, NARTB filed a Request for Extension of Time Within Which to File Reply Comments in the course of which request it stated:

"Obviously, the proposal would not have been advanced had not the Association been completely sure of its feasibility and desirability."

On August 21, 1956, the IBEW sent a telegram to the Commission (with copies thereof to NARTB) opposing the NARTB Request for Extension of Time and requesting the Commission to make it a condition of any extension that NARTB be limited to the filing of a reply as distinguished from the filing of new material. This telegram was followed up by formal Opposition filed with the Commission August 22, 1956. On August 21, 1956, the Commission granted the Request of NARTB for Extension of Time to October 21, 1956. The extension granted by the Commission was related to the filing of "reply comments" and the Commission thus recognized that only a "reply" could be filed.

On October 22, 1956, NARTB filed its Reply Comments. They consist of 118 pages and include 7 supplementary exhibits incorporating 10 affidavits.

In its opposition to the NARTB request for extension the IBEW stated that "The failure [of the NARTB] to state logical reasons for the extension and the excessive time requested gives rise to the question of whether the NARTB needs such time if it proposes to conform to the rules specified by the Commission which provide for a 'reply.'" This question has now been answered.

The document filed by the NARTB under the guise

of "Reply Comments" is not a reply. It constitutes an amendment to the Petition and the submission of new evidence.

The NARTB has thus flagrantly disorganized the procedure established by the Commission for the handling of this proceeding. It is respectfully submitted that the acceptance of the NARTB's change in the procedure established by the Commission would deprive the parties to this proceeding of the due process guaranteed by the Constitution and the law of the land.

2. The Character and Effect of the Reply Comments

The bulk of the material contained in NARTB's Reply Comments consists of new material which attempts to meet the fundamental deficiencies of the original presentation.

In addition to such new material there is a substantial amendment to the Petition in that the NARTB changes its original proposal with respect to high power stations by now proposing that remote control operation for stations with power in excess of 10 KW be granted only on a case-by-case basis and only on condition that an auxiliary transmitter of 5 KW or greater power be installed capable of being activated from the remote point and that a showing be made of the reliability of the principal transmitter. The NARTB concedes that of the four high power stations submitted as proof of reliability of remote operation, the available data on two such stations not only failed to make out a case for remote operations but affirmatively proved quite the reverse, namely, the necessity for attended operations. The NARTB is to be commended for its candor in conceding remote control failure of KIRO and WSB. But, it is submitted, candor, however, commendable, cannot serve as a substitute for proof. And the NARTB presentation reveals, insofar as high power operations are concerned, that in at least 50 per cent of the cases submitted by the Association there is an admitted failure of remote control reliability. Even if we were to accept the NARTB statement of the issue, this is surely "degradation" in any sense of the term.

Included among the additional material designed to cure deficiencies of the original petition are figures on outage time of Canadian stations. (Ex. 7.) Here again NARTB follows its 50 per cent rule and presents half a case. For it appears that as to 4 out of the 8 Canadian stations studied outage figures are not available. Furthermore, the engineer who vouches for the Canadian evidence submitted by the Association is the same engineer whose seal appears on the diagram set forth at page 75 of the Association's Petition which the Association now concedes to be in error in five respects. ("Reply Comments," page 61.) It would thus appear that there is some question as to the credibility of the evidence submitted under the heading of Canadian experience.

The "Reply Comments," in an attempt to cure the defect in Exhibit 3 stemming from its anonymous authorship, explain in Sup. Ex. 3 that according to Mr. A. Prose Walker, a Mr. F. C. McLean told him (Walker) in Warsaw that the report contained in Exhibit 3 was prepared by a Mr. Wynn. This is quite obviously hear-

say. Hearsay or not, it is now clearly stated that the BBC operations other than Daventry are all of 2 KW or less with non-directional antennae. The bulk of the British experience thus appears to have been confined to matters not germane to the present inquiry inasmuch as low power non-directional operations were authorized by the Commission in its 1953 proceeding.

It would thus appear that, aware of the lack of substantial evidence to support the present request for an extension of remote control to high-power and directional operations, NARTB has literally stuffed both its original petition and its "Reply Comments" with material relating to low-power, non-directional experience.

In effect the NARTB is saying (1) that remote control works well at low power, therefore, it will work well at high power and (2) that remote control works well with non-directional antennae, therefore, it will work well with directional antennae. But this is precisely the question left open by the 1953 proceeding. It cannot be answered by mere assertion. Nor for that matter is an affidavit the proper way to express an opinion for affidavits are vehicles for sworn statements of fact—not of opinion or belief.

In connection with the two affidavits which constitute Supplementary Exhibit 2, it is worthy of note, that in addition to other and more basic infirmities herein and in IBEW Comments mentioned, the affidavits contain within their own four corners glaring deficiencies. The Kear and Kennedy affidavit confines itself to remote monitoring—it makes no mention (as indeed it was not asked to) of remote control. In other words this affidavit is only to the effect that readings may be made by remote methods; no opinion is expressed as to control when the readings indicate the need for adjustment.

The Silliman affidavit, too, is deficient. For all this affidavit says is "... it is impossible for this writer to see how such reliability can in any way be affected by the use or non-use of this equipment with a directional antenna system."

Mere inability to see why a device won't work is not a shred of proof that it will work. Proof consists only of a clear and positive showing that it will work.

Another significant instance where NARTB fails to meet the issue is to be found in Supplementary Exhibit 5. In its Comments IBEW pointed out several deficiencies in NARTB's original Exhibit 5. In its "Reply Comments" NARTB selects one of the deficiencies, namely, the lack of names of persons attending the Washington meeting and attempts to remedy the faults of the entire Exhibit by supplying some of the names. The names of the attendant FCC "observers" were not disclosed. The others present who are named in Supplementary Exhibit 5 are persons not entirely without an interest in the case. The main objections to Exhibit 5 remain unanswered and unanswerable.

The IBEW forcefully objected in its Comments (pages 8, 12, 13) to all the experimental evidence on the issues raised by this proceeding submitted by NARTB on the ground that in each case the operation was attended and the proposed relaxation provided for unattended operation. This contention of the IBEW is not denied by the NARTB in its "Reply Comments." On the con-

trary, the NARTB admits the validity of the IBEW position.

The Association states in its "Reply Comments" that "When an overload occurred that required manual reset, it would be logical that the operator on duty would use the reset control nearest him, whether it be on the transmitter, transmitter control unit, or the experimental remote control unit. One must take into account the fact that the transmitters involved in this experimental project were operating commercially and off-theair time had to be kept to a minimum." (Emphasis added.)

What evidence could the IBEW be expected to submit which could show more conclusively than the above language of the NARTB itself that the experiments of the Association are entirely irrelevant to the issues raised by the proposed relaxation of the standards to provide for unattended operation.

It is quite obvious that what is lacking is concrete evidence of actual remote operation of high power and directional antenna stations. This evidence could have been gathered by actual experience on an experimental basis. But to have probative value the experiment would have to be conducted under the same conditions as the proposed relaxation of standards. It would have to be an unattended operation. Whether request was made for such an experimental authorization or whether any such experiment was conducted, does not appear from the petition or the reply comments. It is, in any event, strange to hear the NARTB insisting that the issue is a technical one in view of the cavalier inattention to technical proof that characterizes both the original petition and the "Reply Comments."

In this connection it may be noted that in Supplementary Exhibit 8 at page 74 the NARTB, again with commendable candor, concedes the defects and weaknesses of its presentation with the explanation: "...it must be noted that the entire NARTB petition was in the form of an experiment...it can easily be understood that it was difficult to perform all the experimental work under ideal controlled conditions."

The phrase "ideal controlled conditions" presents a straw man issue. The IBEW has not commented on the NARTB experiments on the basis of perfectionist standards. The IBEW comments have been based on the ordinary practical requirements of day-by-day operation. Certainly, the extreme variation between attended and unattended operations cannot be brushed off with the inapplicable word "ideal."

The disarming statement quoted above cannot cover up for the failure to present proof of the workability of remote operations at high power or with directional antennae. Not only were the so-called experiments not conducted on an unattended basis but as to half of the high power "experiments" the remote control was only simulated.

It now appears from the affidavit of KDKA's Chief Engineer that the readings taken to show that station's operations must be disregarded. For the affidavit in attempting to explain discrepancies between regular and remote readings states, naively enough, that the two meters were not read at exactly the same moment. From this he concludes that discrepancies were due to this time difference. It is, of course, at least equally logical to conclude that any identical readings were mere accident. Nothing can be concluded when such a time difference exists.

The situation as to high power stations thus is this: of the four stations studied, two (KIRO and WSB) are admitted failures; one (KDKA) cannot be considered as any evidence of reliability because of the admitted time difference between regular and remote readings; the remaining station (WOWO) was "remotely controlled" from a point within the transmitter building as was WSB. As noted above, in addition to these infirmities, the essential condition of experimental unattended operation was lacking, namely, that the operation be unattended.

Conclusions

Since the "Reply Comments" of NARTB contain matter not constituting a reply to Comments filed by opponents of the proposed relaxation of rules which matter is inextricably intertwined with the small amount of actual reply, it is submitted that the "Reply Comments" must be stricken.

Inasmuch as the Petition considered with or without the "Reply Comments" simply fails to make out a case for the proposed relaxation of rules, it is submitted that the proceedings must be dismissed. Furthermore, in view of the fact that the "Reply Comments" contain a petition for totally different relief from that encompassed within the original petition and the Commission's Notice of Proposed Rule Making and since no motion to enlarge or change the issues was filed, it would be improper and a denial of due process of law for the Commission to proceed further with this case on the basis of the procedure adopted unilaterally by the Association, a private party in this proceeding.

Respectfully submitted,

/s/ Albert O. Hardy,

Director, Radio, TV & Recording Division International Brotherhood of Electrical Workers.

/s/ KENNETH D. Cox,

International Representative, International Brotherhood of Electrical Workers.

1200 Fifteenth Street, N. W., Washington 5, D. C.

/s/ Louis Sherman.

/s/ William J. Brown,

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

Unity Doesn't Change NLRB Certifications

The Consolidated Organization Assumes the Obligations and Liabilities

THE merger of two international unions does not cancel National Labor Relations Board certifications or rulings affecting locals of the two consolidating organizations, the NLRB held.

The board took this stand in a 20-page opinion reaffirming a 1954 decision finding the Edgewater Works of the National Carbon Co., a division of Union Carbide & Carbon Corp., guilty of unfair labor practices. All members of the board signed the ruling.

The NLRB's original order and ruling had upheld certification of the Gas, Coke & Chemical Workers' local as the appropriate bargaining unit at the plant, and directed the company to bargain with it. The company challenged this in January 1955 in a petition filed with the U. S. Court of Appeals.

The board answered the company's petition two months later and asked the court to direct enforcement of its order. Subsequently, however, the UGCCWA merged with the Oil Workers, and the court then remanded the case to the NLRB to consider the effect of the merger on its bargaining order.

After a supplemental hearing early this year, NLRB Trial Examiner James A. Shaw ruled last March that despite the organizational changes resulting from the merger of the two unions, the continuity of the certified union had been preserved sufficiently to warrant upholding the original bargaining order.

The NLRB now has affirmed the trial examiner's rulings. It declared that the merger of the two unions "was accomplished in a democratic manner, with the knowledge and participation, and apparent approval, both in the planning stages and on the decisive votes, of rank and file members."

"The consolidated organization," the NLRB held, "did not merely acquire the assets and bargaining rights of its constituent unions, but it also assumed their liabilities and contractual oblgations. By such provisions, and indeed, by all reasonable means, the unions sought to establish a consolidated organization that would, in the words of the Consolidation Agreement, be a 'continuation' of the constituent unions."

The board ruled that "the consolidated organization was a continuance of the certified unions" and concluded that TCAW, "a continuance of the Gas Workers, has succeeded to the status of that

organization as the duly designated bargaining representative."

It added that the company has "the same duty" to bargain collectively with the OCAW as it had, under the board's original order, to bargain with the Gas Workers.

Accordingly, it ordered the company to engage in such bargaining and to cease and desist from "interfering with, restraining, or coercing its employes in the exercise of the rights guaranteed by Sec. 7" of the National Labor-Management Relations Act.

Station WTTM

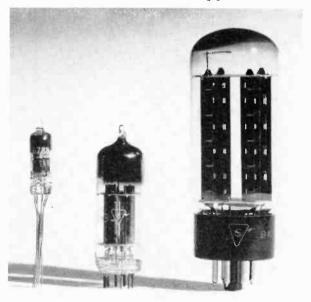
Continued from page 5

rector, a 14-year veteran of the staff, produces and moderates the weekly series, which is a high school version of "Meet the Press."

- The cause of better education gets an additional boost from "What's the Answer?" a weekly panel show featuring parents and teachers in discussions of such problems as: How does Johnny learn to read? Is Latin really dead? Should my son play high school football? The show has a big listening audience because of its thought-provoking questions, and also because it is heard over eight radio stations in New Jersey and Pennsylvania.
- WTTM gives more than lip service to community service. In 1953 it formed a Community Program Committee, made up of 45 local civic leaders, to help guide its public service activities. The committee meets regularly with Station Manager Fred Walker and other staff members.
- Service to women is not neglected. Charlotte McPherson, woman's director, has a daily 15-minute program which covers just about every subject of interest to women.
- Now in its fifth year of continuous broadcasting is WTTM's award winning series, "Labor Talks It Over." This program, instituted as a service to the station's audience of union members in the industrial Delaware Valley, has been called by Dr. Richard Wood, director of Management and Labor Relations at Rutgers University, "one of the major contributors" to the labor movement. Every Sunday, four representatives of labor talk over their own problems and the problems facing the community with top leaders of government, management and civic organizations.

Technical NOTES

New Tube Types Shown



Diversification of electronic tube types is illustrated in this photo from Sylvania. The three tubes represent three different applications—the larger tube is a radio tube found in most radio sets; the middle tube, the 6350, is a new computer tube, while the smaller tube, the 6788, is a new guided missile tube. The new computer tube is one of 12 types in Sylvania's growing computer line, while the 6788 is the first of seven developmental types of subminiatures for guided missile application.

Transistors in TV

The use of transistors in some vital circuits in television receivers is now practical, George Schiess, electronics engineer of Sylvania Electric Products Inc., reported recently.

Referring specifically to small-screen portable TV sets, Mr. Schiess said that transistors are especially adaptable to this type of receiver because of their small size and their high efficiency, which would permit economical operation from a battery or other power supply.

Results of experimental work done at Sylvania's Electronics Division laboratory at Woburn, Mass., indicate that transistorized vertical deflection systems for picture tubes are practical and comparable to tube circuits in performance and circuitry, Mr. Schiess said.

The deflection system in a television receiver is vital in guiding the electron beam which produces the picture on the screen.

Transistorization was seen as practical now for two other important television receiver circuits. One is the audio circuit, an integral part of a set's sound system. The other is the synchronization circuit, which synchronizes the receiver with the TV broadcasting station's transmitter.

110-Degree Deflection

Following two years of extensive engineering research, a television picture tube employing wide-angle 110° diagonal deflection and making possible more compact TV receivers, because of its shorter length, has been developed by the RCA Tube Division. The new tube is an aluminized, rectangular glass type having an over-all diagonal dimension of 213/8 inches, an over-all length of 141/2 inches, and a viewing area of 262 square inches.

The 110° deflection-angle tube is the first allnew black-and-white television picture tube to be developed in recent years, according to RCA. Its over-all length of $14\frac{1}{2}$ inches compares with 20 inches for a tube having the same over-all diagonal dimension but with only 90° deflection angle. Dimensions of the new tube will permit television set manufacturers to make a substantial reduction in the depth of their cabinets.

Samples of tubes having 110° deflection are presently being distributed to the industry by RCA in two envelope sizes, with "21-inch" and "17-inch" over-all diagonals. Similar 110° tubes with over-all diagonal dimensions of "14 inches"

and "24 inches" will be made available if there is a demand for them.

One of the most important features of the new tube is the use of a "straight" electron gun designed with an improved electrostatic focusing-lens system and incorporating a unique pre-focus structure to maintain image sharpness over the entire screen area. The new electron gun eliminates the need for an ion-trap magnet.

Another feature of the tube is a neck diameter of only $1\frac{1}{8}$ inches which makes possible the use of a deflecting yoke having increased deflection sensitivity and enables the economical deflection of the electron beam through the wide deflection angle. This is accomplished with only slightly more power than is required to scan with a 90° deflection angle.

The new 110° kinescope, in the 21-inch size, will be available in limited production quantities during November. It is being manufactured at the Marion, Ind., plant of the RCA Tube Division.

RCA Home TV Recorder

Demonstration of a "home" TV tape recorder was a feature of a recent tour of the RCA Princeton Laboratories by newsmen. The device weighs about 70 pounds, has 26 tubes and compares in complexity with a monochrome TV set, according to Dr. Harry F. Olson of RCA.

The recorder affords approximately 160-line resolution at 10 ft. per second, on a half-track of quarter-inch tape. A seven-inch reel thus affords approximately 4 minutes on each half-track. Dr. Olson indicated that the device demonstrated was a playback machine but that a complete playback-recorder would be only slightly larger.

New Slide Projector

Development by RCA of a television slide projector featuring a loading capacity of 36 2 x 2 inch color or monochrome transparencies was announced recently by A. R. Hopkins, manager of Broadcast and TV equipment department, RCA. The projector will be placed on the market in January, 1957 at a price of \$2,450.

Mr. Hopkins said the projector (Type TP-7A) has been designed for use in conjunction with virtually all types of TV film camera systems. He observed that the projector incorporates various operating features suggested by broadcasters in an RCA survey. The survey showed, Mr. Hopkins said, that the features most desired by broadcasters and incorporated in the TP-7A were: high-

slide-loading capacity, visability, emergency projector lamp and improved color balance.

Military Aircraft Tube

A traveling-wave tube device for military aircraft which weighs 80 per cent less than present electronic equipment performing the same function was announced recently by Sylvania Electric Products Inc.

Gerald C. Rich, manager of the company's microwave tube laboratory, said the TW 956, as the new device is designated, utilizes a system of permanent magnets to focus a traveling-wave tube, instead of solenoids requiring electric power.

"The traveling-wave tube and its focusing magnets have been combined in one 'package,' "Mr. Rich said. "Elimination of the solenoids has brought the weight of the tube and its focusing apparatus down from 13 pounds to $2\frac{3}{4}$ pounds. These achievements in 'packaging' and weight reduction will have important airborne military applications, and have great potential in other military and commercial areas as well."

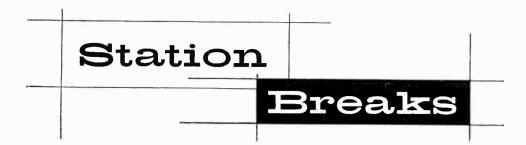
Traveling-wave tubes are essential components in carrying out various electronic tasks necessary to the combat effectiveness of high-performance military planes, Mr. Rich commented.

Color Video Tape

Demand by the industry will be the primary factor in Ampex development of video tape recorders suitable for recording color TV. According to Mr. Ross Snyder, video equipment sales manager, Ampex envisions using the same tape which has been developed for monochrome recording and the recorder would use the same rotating-head principle and the same tape speed as the black-and-white model.

The company is shooting for a conversion kit for its monochrome recorders, also. Careful thought is being given, too, to make a compatible system which will be practical for playing back color tape for reproduction on monochrome standards. The company hopes to have prototype equipment ready for display next Spring.

Production of monochrome recorders is planned for next February or March. Target date for delivery of the first available equipment, already on order by CBS and NBC, is still uncertain but appears likely to be in November or December, 1956. Availability of the tape itself appears to be no problem—Minnesota Minning, Orradio and Reeves are already producing it and Audiotape has production scheduled for the very near future.



VTR Prototypes Soon

Both NBC and CBS expect to get Ampex video tape recorders soon, and they are training engineering personnel at Ampex's Redwood City, Calif., factory. An initial shipment of three handmade prototypes of the Ampex video tape recorder goes to CBS within the next few weeks, and two such units are to be delivered to NBC-TV soon, as well.

Ampex is making only 13 prototypes of its VTR. CBS will receive five and NBC three, with the remainder going to government laboratories. Production orders now total 84 units. It will be next August before VTR's will come off the production line en masse.

Darr Dies in Rescue

Brother Kurt Darr gave his life in an heroic attempt to save Clem Muth, a fellow CBS employe, from drowning during the early hours of Friday, October 26, 1956. The two men were boarding the yacht Sis, which was docked at the Detroit Ship Basin for inspection, prior to a Florida cruise.

Brother Darr's untimely death is deeply regretted by everyone who had the honor of working with him and who knew his deep devotion to his sense of the rightness of things. He gave his life as he lived it. An ever-abiding awareness of his responsibility to his work and those he worked with were self-evident qualities to all who knew him.

Brother Darr came to WBBM-CBS, Chicago on August 7, 1933 working in the Studio and Remote Program Departments. He began working in the Maintenance Department in 1938 and was promoted to the position of Maintenance Supervisor in March, 1954.

He was elected to serve as Financial Secretary of Local 1220 in June, 1949. Because of his competence and his good nature, he was well liked by all the members and re-elected to this office every year thereafter. Brother Darr had also

served on the Executive Board since June, 1955.

Brother Darr was a native Chicagoan. He was born on Chicago's South side on the 30th of December, 1909, and was 47 years old. Brother Darr is survived by his wife, Mollie, and three children, Leighton, Raymond and Janice. His home was at 37 Gilbert Street, Clarendon Hills, Ill. Burial was at Oak Hill Cemetery, Chicago.

Brother Darr's fellow-workers at CBS and the membership of Local 1220 mourn his passing beyond the power of words. No greater sacrifice can any man make than to give his life as Brother Darr did his.

A Good Question

"Why are we so busy when we work fewer hours than those who have gone before," Richard L. Evans asked listeners on CBS Radio's "Salt Lake Tabernacle Choir" program recently. "Are we busier than those who processed all their winter food, who sewed and churned and milked and mended — than those who cut down trees and squared up logs and planted and hoed and harvested with simple tools? Our pioneer and pilgrim parents, with all they did, yet seemingly found time for some of the real essentials."

The Hard Way

According to Hollywood Daily Variety, it sometimes pays to ask questions. Director Sam Pierce and Engineer Doc Bennett received an assignment from KNX to do some recording in the control tower of the Los Angeles International Airport. Pierce and Bennett spent half an hour carrying 360 pounds of equipment up nine flights of stairs and, after collapsing at the top of the stairs were asked by one of the tower operators, "Say, why don't you fellows use the freight elevator on the outside of the building?"

Technician-Engineer