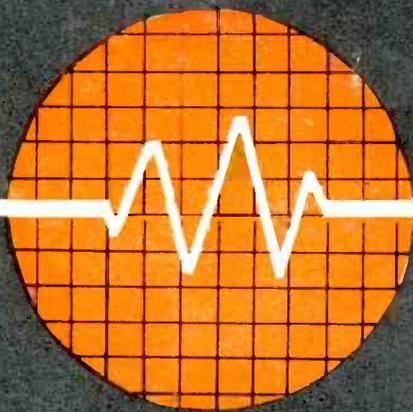


AUGUST, 1963



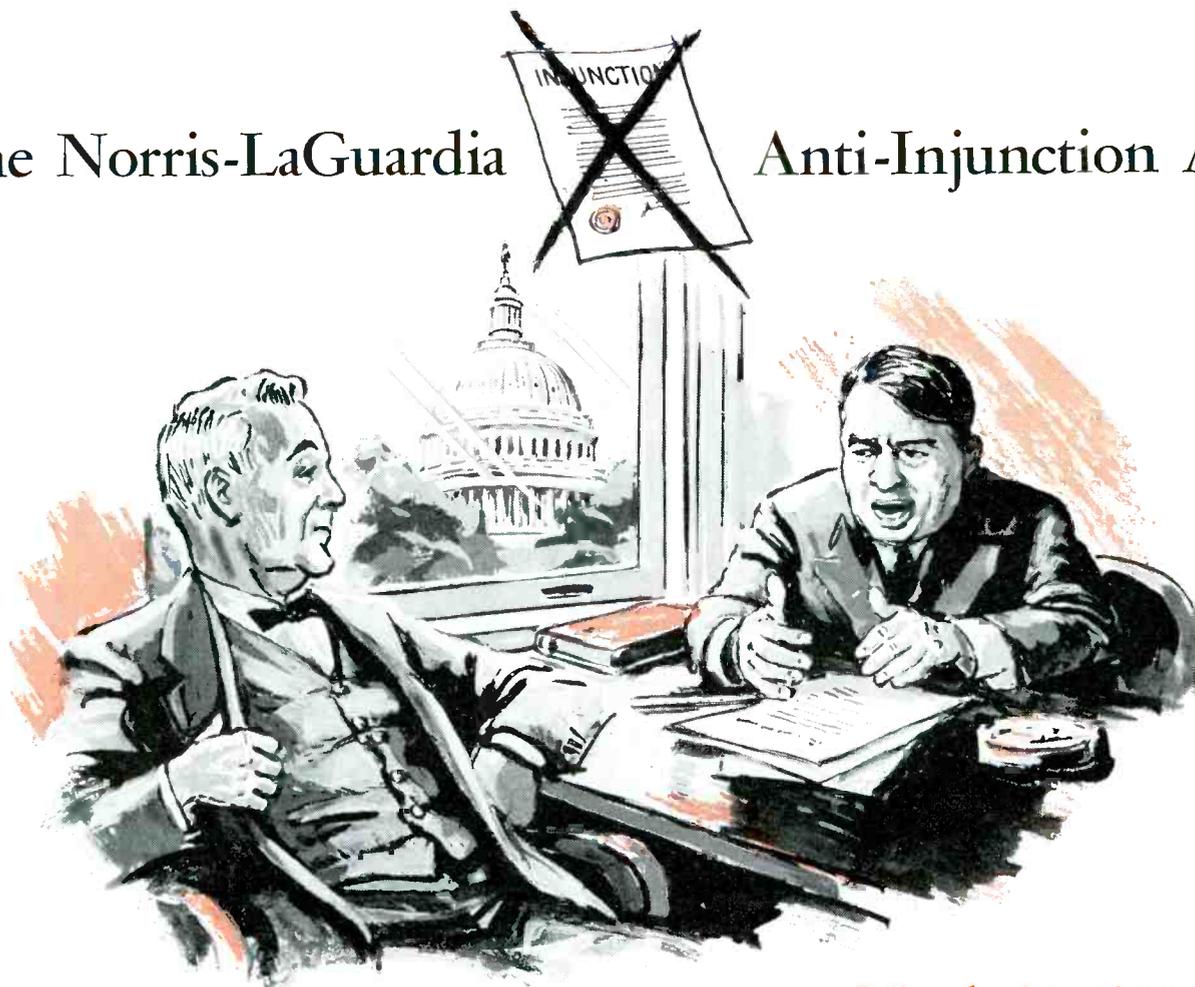
TECHNICIAN ENGINEER

Published for the Employees of the Broadcasting, Recording and Related Industries

INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS — AFL-CIO

The Norris-LaGuardia

Anti-Injunction Act



March 23, 1932

The anti-labor injunction, one of management's earliest weapons against the unions, has plagued working people for decades. Enactment of a relief law, offering some protection against the vicious impact of the injunctive legal device, was a goal of the labor movement for many years.

Some efforts to prepare corrective legislative got bogged down in technicalities and maneuvers. The American Federation of Labor stepped up its efforts in the 20's and early 30's to champion legislation with particular emphasis on outlawing the "yellow dog" contract (in which a worker pledges not to join a union).

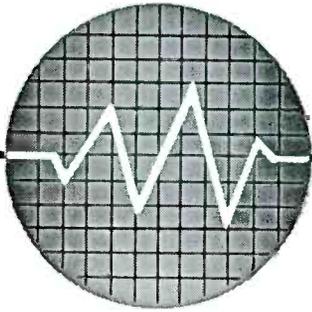
Victory finally came in 1932 under the sponsorship by two of liberalism's great figures — a progressive from the prairie and a fusionist from the big city: Senator George W. Norris, Progressive Re-

publican from Nebraska and Representative Fiorello LaGuardia, Republican of New York City. Top-heavy margins marked passage: 75-5 in the Senate and 363-13 in the House. President Herbert Hoover signed the measure March 23, 1932. The AFL Executive Council said the legislation represented the "outstanding legal accomplishment of the American Federation of Labor. It marks a great step forward, reflecting as it does the culmination of years of effort to secure the enactment of injunction relief legislation."

The power of Federal courts was sharply curtailed; striking and payment of strike benefits were exempted; yellow dog contracts were made unenforceable and careful procedures were established for use of the injunction by the Federal judiciary. The Norris-LaGuardia Act is unanimously regarded as one of the great labor landmarks of our time.

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The INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS
 GORDON M. FREEMAN International President
 JOSEPH D. KEENAN International Secretary
 JEREMIAH P. SULLIVAN International Treasurer



TECHNICIAN ENGINEER

VOL. 12, NO. 8
 ALBERT O. HARDY, Editor

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the cover From the shadows, we look into a busy studio of Station WLBW-TV, Miami, Florida, where members of Local Union 349 are rehearsing a local show. A story and pictures of the station begin on Page 4.

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 1961 figures: June, 1963—106.6; June, 1962—105.4.

commentary The next time someone tries to tell you unions are loaded with corruption, straighten him out with the following information.

Financial institutions (banks, insurance companies, etc.) and unions both are required by law to bond their officers for a percentage of the total amount of money they handle annually.

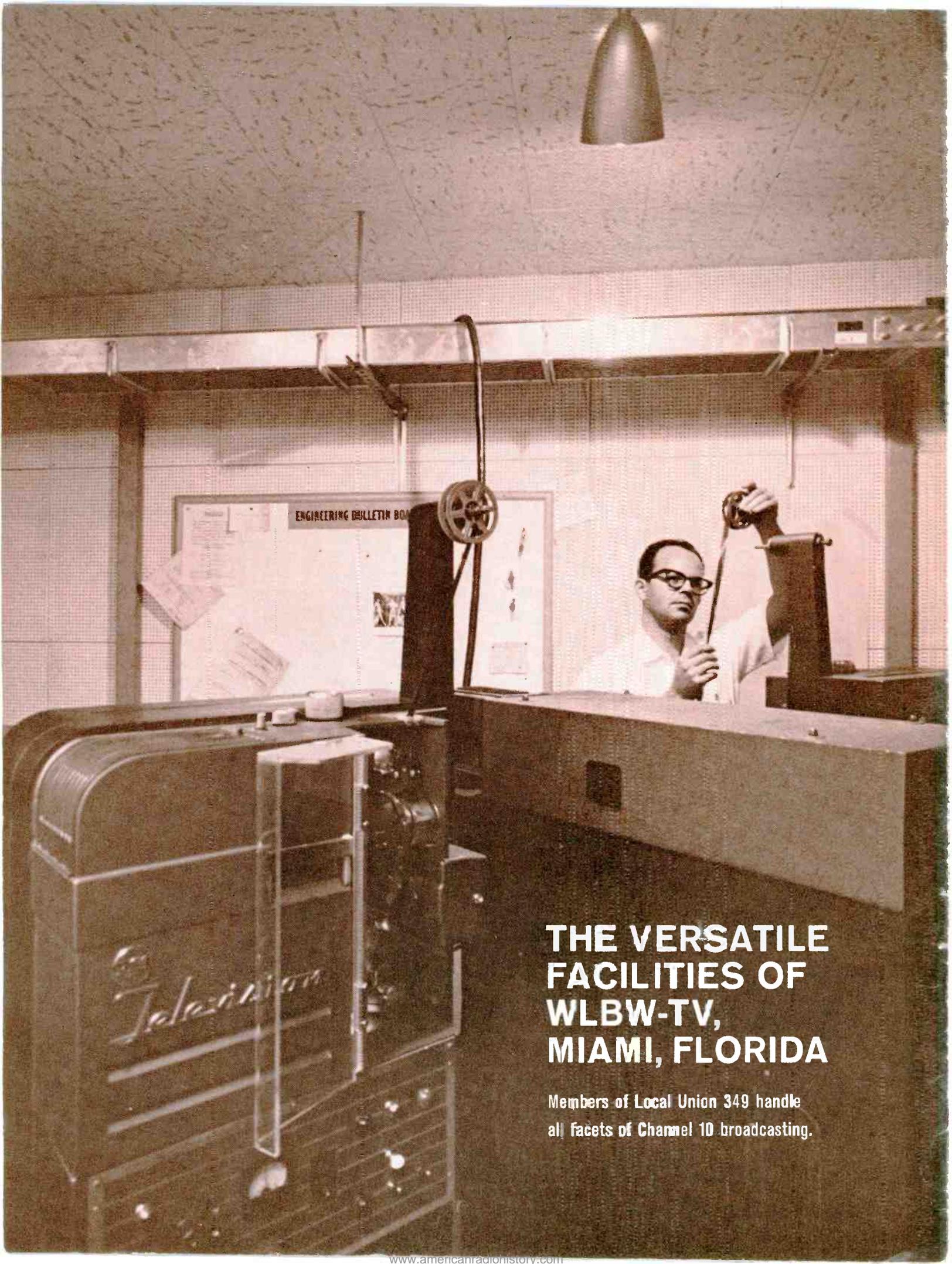
In 1960, financial institutions paid premiums of \$21.5 million. Due to widespread embezzlement and fraud, bonding companies lost \$17.1 million of this amount, 71.4 percent.

In the same year, unions paid \$1.4 million in premiums, on which bonding companies had to pay only \$104,000.

The above covers institutions. What about individuals? The results again show that unions, which have been tarred as the "bad guys" on the American scene, have a remarkably low incidence of dishonesty among their leaders. Not so with banks. The chart below covers, for banks, the period January, 1958, through June, 1960, for unions September, 1959, to September, 1962.

	Number Insured	Indiv. Cases of Fraud. Embezzlement	Percent
Banks	14,000	1771	12.7%
Unions	60,000	74	.1%

—from KEEP IN TOUCH, Women's Activities Department, COPE.



**THE VERSATILE
FACILITIES OF
WLBW-TV,
MIAMI, FLORIDA**

Members of Local Union 349 handle
all facets of Channel 10 broadcasting.

In proper South Florida style, Station WLBW-TV, Miami, Florida, constructed its studio building around a swimming pool. Beside the pool is an area for outdoor commercials. The pool itself also serves as a setting for special shows.

The studio building is a two-story structure devoted solely to the production of good local and ABC network television for a wide audience in the Sunshine State.

The technicians and engineers at this versatile broadcasting facility were represented by IBEW Local Union 349 when the station went on the air on November 20, 1961.

The Channel 10 station is owned and operated by L. B. Wilson, Inc.

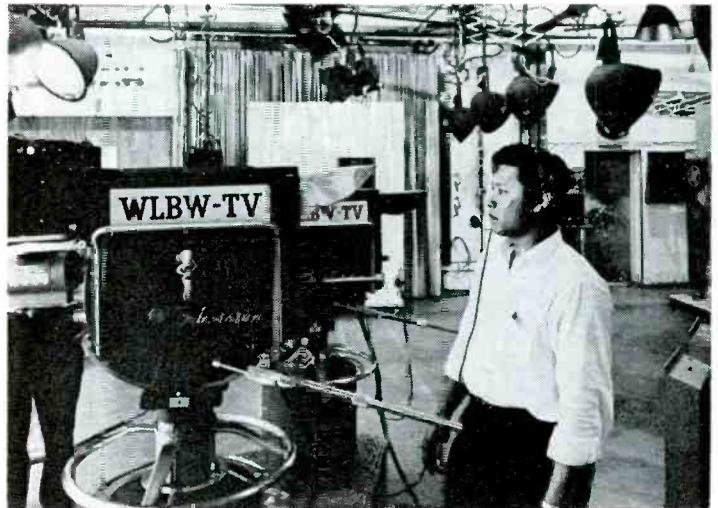
The television signal to the transmitter is via an RCA, one-watt, micro-wave STL and a similar stand-by unit.

The transmitter installation consists of an RCA TT-50 AH transmitter with a 1049 foot tower supporting a traveling wave antenna. This combination gives the station its maximum 316 KW ERP. At the 500-foot level of the tower an Alford Type 1046Q Stand-By Antenna has been installed. Co-ax switching to these antennas is done in the transmitter room.

WLBW-TV's mobile unit is a converted Greyhound bus, divided into three sections. The front is switching and production. The center is video operation, the rear section is the rack room. All cabling is installed permanently with provision for six cameras and up to 27 microphones. A side-door has been cut into a space provided for a VTR machine. In addition to the large mobile unit, there is a "crash unit", a one-camera chain in a Volkswagen Bus.

WLBW-TV transmits color as received from the network. The station hopes to originate color soon.

The equipment is operated and maintained by a crew of 23 technicians. The station at present has two video tape machines—I Ampex VR1002 and one RCA TR2. An RCA TR-22 Recorder is on order.

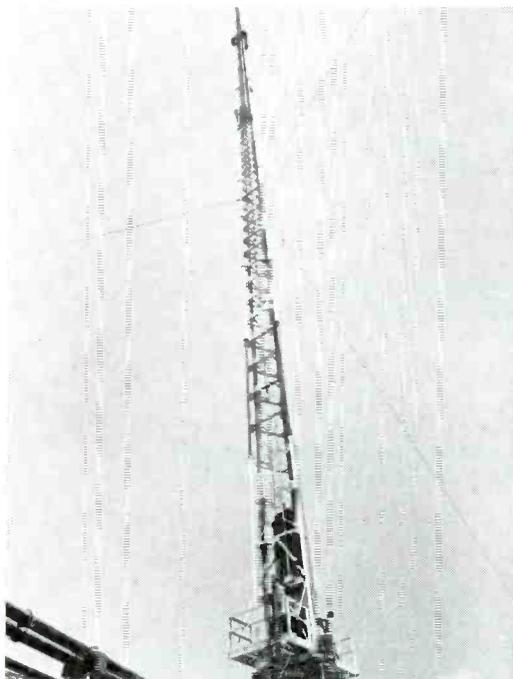


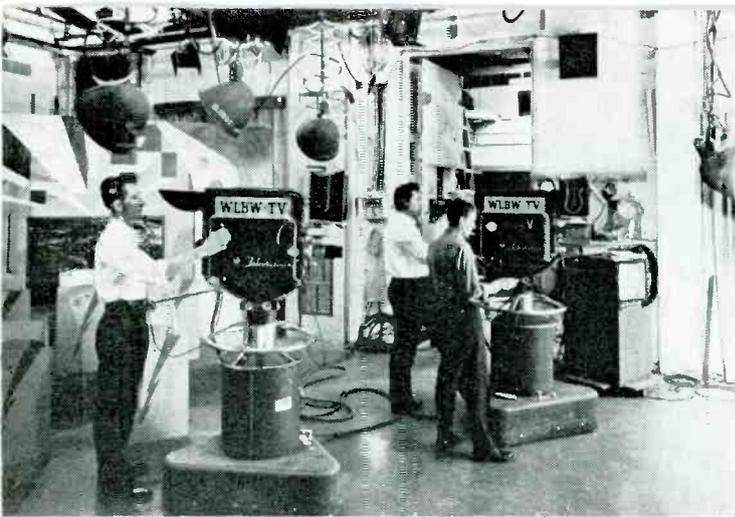
OPPOSITE PAGE: Mort Levin loads the film projectors.

TOP: Ray Shigley checks video levels at the Channel 10 transmitter, located at 501 N.W. 207th Street.

CENTER: Ken Amow, cameraman, checks his picture in a WLBW-TV studio, as a rehearsal gets underway.

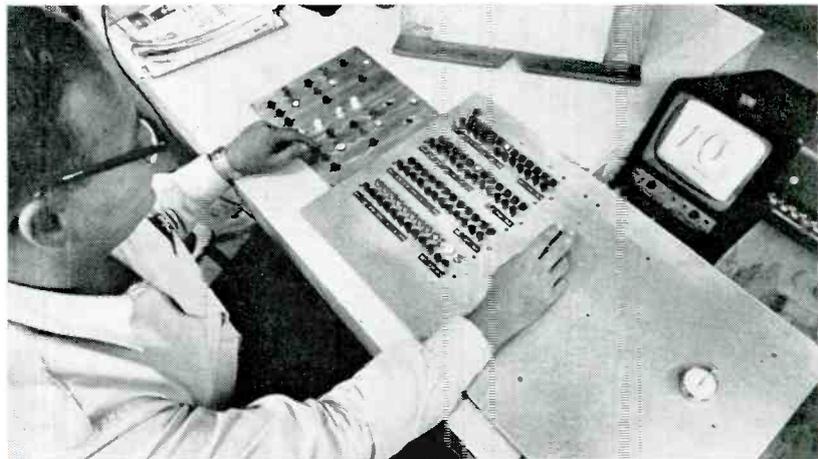
BELOW: The station's new 1045-foot tower, tallest in South Florida. Located at the Greater Miami Antenna Farm, it supports a new 12-gain traveling-wave antenna.





The Versatile Facilities of WLBW-TV

Continued from Page 5



TOP LEFT: Three members of Local Union 349 intent on their work. From left, they include Edward Teammel, Ken Amow, and Earl Wainwright.

BOTTOM LEFT: Technician Edward Azevedo at an audio console at the WLBW-TV studios.

TOP RIGHT: Steve Ramsey operating video control, as a local show is aired. Studios are located at 2133 N.W. 11th Street in Miami.

CENTER RIGHT: Lee McWilliams switches to a station ID slide from his post at a switch panel.

BOTTOM RIGHT: Charles Needs operates the station's Ampex video tape recorder.



Local Working Rules Have Long History

Early in 1927 Broadcasting Rules Formulated

IN keeping with our practice of occasional reminiscences, we have gone back to the March 1927 issue of the JOURNAL to find the "Working Rules" in Local Union No. 1, St. Louis, and many of them are very interesting—with some of them still in effect. The "Class E" members of Local Union 1 were those involved in the radio business and they were collectively referred to as "The Radio Division" of the local union.

Local Union No. 1 thus included employees of broadcasting companies until December 18, 1940, when Local Union No. 1217 was chartered. In recognition of the early history and long experience of the membership of St. Louis, Local 1217 became Local Union No. 4 on January 1, 1959.

There were 44 Working Rules established in 1927 and, with considerable nostalgia and a low bow to the checkered past, we will print the first 28 of them. Perhaps this warrants careful perusal, as of 1963, since "what is past is prologue."

WORKING RULES

RULE 1. All radio transmitting apparatus and equipment shall be operated only by government licensed radio operators holding not less than commercial second class, or its equivalent as a broadcast operator's license, except as provided for in succeeding rules and in accordance with the United States Government regulations covering radio stations.

RULE 2. The work of licensed radio operators shall be divided as follows:

1. As radio station engineers.
2. Operation of radio telephone equipment in broadcasting stations.

3. Operation of code and telephone transmitters and auxiliary equipment of ship and shore radio telegraph stations.

4. Operation of radio telephone and telegraph equipment on all types of commercial aircraft.

5. Operation of radio equipment for the transmission of photographs by radio.

RULE 3. Radio operators now working at broadcasting stations, or whose last job was at a broadcasting station, shall not be permitted to work in any ship or shore radio telegraph station unless given permission by a two-thirds majority consent of the Class E men at one of its regular meetings.

RULE 4. Radio operators now working in a ship or shore radio telegraph station, or whose last job was in code work, including new members whose entire past experience has been in code work, shall not be permitted to work in any capacity at a broadcasting station, unless given permission by a two-thirds majority consent of the Class E men at one of its regular meetings.

RULE 5. The business agent shall have the right to give radio men temporary permission to work under rules 3 and 4 until such time as permanent permission is granted by the Class E men as required under rules 3 and 4.

RULE 6. In broadcasting stations, whose power output is under 1,000 watts, the radio operator on duty shall operate all equipment in his station, including such amplifying equipment as shall assure accurate control of the radio transmitter.

RULE 7. In broadcasting stations, whose power output is 1,000 watts and over, where the amount of apparatus involved requires the use of several rooms other than studios, one or more assistants to the radio operator on duty, who do not hold radio operators' licenses, may be employed. These unlicensed assistants are to have the status of amplifier men.

RULE 8. At no time shall an assistant operate any apparatus whatsoever, in any radio station, unless a licensed radio operator is also present and on duty. The radio operator on duty assumes full responsibility for any and all acts committed on the job, by an unlicensed assistant working under him.

RULE 9. Radio men shall be permitted to work in any classification of this body of Class E men, in accordance with rules 3 and 4, however, they shall not work continuously in any other class, when such work keeps regular men of that class idle.

RULE 10. Amplifier men shall not be permitted to work continuously as radio station assistants, when such work keeps radio men idle.

RULE 11. Rules 9 and 10 are not to be construed as giving either the radio or amplifier men the right to bump each other off these jobs, when such radio or amplifier man was employed on the job in question, at the time either man became idle. However, on new jobs or jobs which become vacant, effort shall be made to place each man at his particular line of work, without jeopardizing the service of any radio station.

RULE 12. Where radio and amplifier men are now working at the same station, but outside of the jurisdiction of their class, the change shall be made without delay, unless valid reasons against the change can be shown.

RULE 13. A recognized owner, manager, engineer, or chief operator of a radio station shall conform with rules 8, 9, 10 and 11, with respect to the placing of these men in their proper positions.

POWER EQUIPMENT

RULE 14. Radio men shall operate and maintain all power equipment in connection to a radio station, its transmitter and its auxiliary equipment.

RULE 15. Radio men shall not do new construction work on any equipment as such work comes under the jurisdiction of Class A men.

RULE 16. In no case shall an electrician, not a member of the I.B.E.W., whether in the employ of the owner of the radio station or not, be allowed to make any repairs whatsoever, on any power equipment at any radio station recognized by the Class E men of Local No. 1.

RULE 17. In case Class A electricians are not immediately available for repair work, radio men shall have the right to make their own temporary repairs.

RULE 18. The special rights set forth in rule 17, to apply only when it is a recognized fact, that delay in making these repairs would damage other equipment or keep the station off the air for an indefinite period.

RULE 19. All members of Class E, holding valid commercial or broadcast operators' licenses shall be required to give to the business agent, the following information concerning their licenses: Class, grade, date and place of issue, all operating experience including dates and place of employment. This information to be kept on file by the business agent, so he may know what men are to work as radio operators in accordance with rules 2, 3, and 4.

RULE 20. Any member who successfully passes the government examination and receives a radio operator's license of the proper grade, shall upon submitting the necessary information to the business agent, be en-

titled to go to work as a radio man in accordance with rules 2, 3 and 4, and where it conforms with the entire working rules of the organization.

RULE 21. No member of this body of Class E men shall be employed solely as a radio announcer. He may, however, do announcing along with his regular work providing that he shall receive such additional compensation for announcing, as shall be agreed upon between the man and his employer and that this work does not hinder a man in any way from performing his regular work.

RULE 22. In radio stations employing the chain system of broadcasting, such telephone company equipment as line equalizers, monitoring systems and volume control indicator systems shall be operated by the radio operator on duty or one of his assistants. Any adjustments which are to be made at these instruments, shall be done by the above named men. Telephone engineers shall, however, be permitted access to this equipment for the purpose of making such repairs or changes to this equipment, under the supervision of the operator, as new developments are put into practice in these particular systems.

RULE 23. The business agent shall give to the chairman of the Class E men any additions or deletions in the list of radio operators' licenses which he shall hold in accordance with rule 10 to be read to the members of Class E at its next regular meeting.

RULE 24. Radio men shall operate all radio apparatus used in the transmission of photographs by radio.

RULE 25. Radio men shall operate all radio telephone and telegraph apparatus and auxiliary equipment used on all aircraft for commercial purposes. This includes air carriers of passengers, freight or any other commercial purpose not specifically named in this rule.

RULE 26. Radio stations employing the services of but one licensed operator, whose regular weekly broadcasting schedule calls for more than twenty hours' overtime work per week by this operator, shall be required to hire an additional operator.

RULE 27. Engineers in charge of radio stations, shall not attempt in any way to operate or make any adjustments whatsoever to radio transmitting apparatus, in their stations, unless they hold a valid government radio operator's license, as this work strictly belongs to the radio men of this body.

RULE 28. Rule 27 shall not apply with respect to engineers installing new apparatus, nor to engineers representing the manufacturer of said apparatus, who may be called in to rectify any incorrectly designed parts of apparatus.



WORDS OF WISDOM ON LABOR from the United States Supreme Court

Justices of the United States Supreme Court have spoken out boldly on the rights of labor. Below are a few excerpts from cases involving issues of labor or unionism.

Discrimination against union labor in the hiring of men is a dam to self-organization at the source of supply. The effect of such discrimination is not confined to the actual denial of employment; it inevitably operates against the whole idea of the legitimacy of organization. In a word, it undermines the principle which, as we have seen, is recognized as basic to the attainment of industrial peace.



—Associate Justice Felix Frankfurter
Phelps Dodge Corp. v. NLRB 313 U.S. 137

The law should be as zealous to protect the constitutional liberty of the employee as it is to guard that of the employer.



—Associate Justice Oliver Wendell Holmes
Coppage v. Kansas 236 U.S. 1

Free speech on both sides and for every faction on any side of the labor relation is to me a constitutional and useful right. Labor is free to turn its publicity on any labor oppression, substandard wages, employer unfairness, or objectionable working conditions. The employer, too, should be free to answer, and to turn publicity on the records of the leaders or the unions which seek the confidence of his men.



—Associate Justice Robert H. Jackson
Thomas v. Collins, 323 U.S. 516, 547

It is too late now to argue that employees can have no collective voice to influence railroads to act in a way that will preserve the interests of the employees as well as the interests of the railroad and the public at large.



—Associate Justice Hugo L. Black
Black Railroad Telegraphers v. Chicago & N.W. Railway, 362 U.S. 330

Long ago we stated the reason for labor organizations. We said that they were organized out of the necessities of the situation; that a single employee was helpless in dealing with an employer; that he depended ordinarily on his daily wage that he thought fair, he was nevertheless unable to leave the employ and resist arbitrary and unfair treatment; that union was essential to give laborers opportunity to deal on equality with their employer.



—Chief Justice Charles Evans Hughes
NLRB v. Jones & Laughlin Steel Corp.,
301 U.S. 1. 33.

The publication unaccompanied by violence, of a notice that the employer is unfair to organized labor and requesting the public not to patronize him is an exercise of the right of free speech guaranteed by the First Amendment which cannot be made unlawful by act of Congress.



—Chief Justice Harlan F. Stone
United States v. Hutcheson, 312 U.S. 219, 243



Playback from YESTERYEAR

The Technician-Engineer is looking for stories and pictures from the early days of broadcasting and recording to present to its readers on this regular feature page. Dig down into your own file of prints and negatives and into your scrapbook of mementoes; find the items which you think our members would enjoy; send them to: The Editor, Technician-Engineer, Room 610, International Brotherhood of Electrical Workers, 1200 Fifteenth Street, N.W., Washington, D. C. We'll be happy to return the material to you following publication.

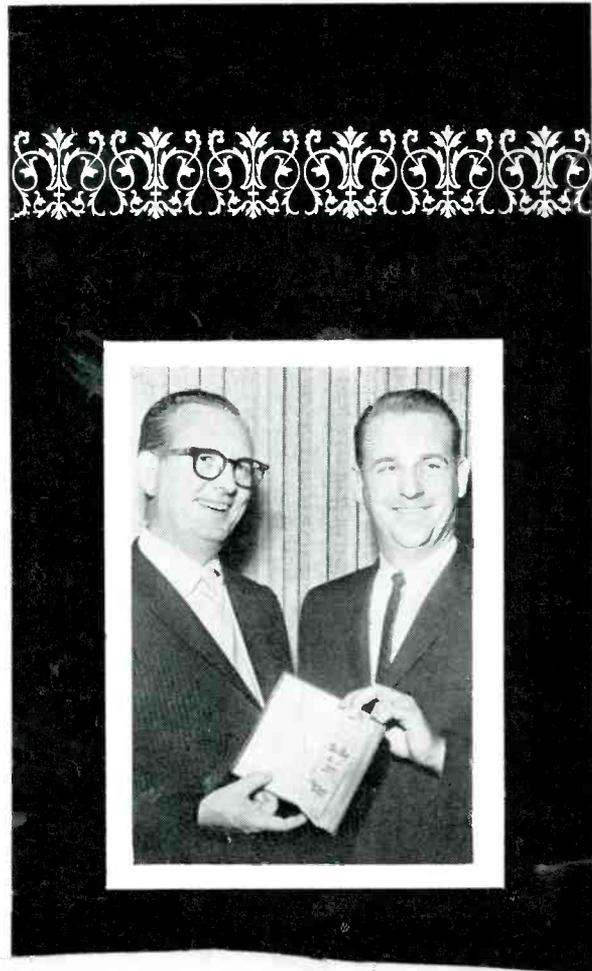
RADIO LOG—VINTAGE '25 . . . An insight into the operation and performance of early-day radio is provided by a unique 1925 KFWB (Los Angeles) Radio Log which was presented recently to Harfield Weedon, Station KNX, Chairman of the Radio Acquisitions Committee of the Hollywood Museum, by Kenneth DeVaney, Administrative Assistant of the Crowell-Collier Broadcasting Corporation.

The battered, time worn journal, a model of simplicity and humorous editorializing, presents a marked contrast with the carefully detailed, factual reports required of stations today.

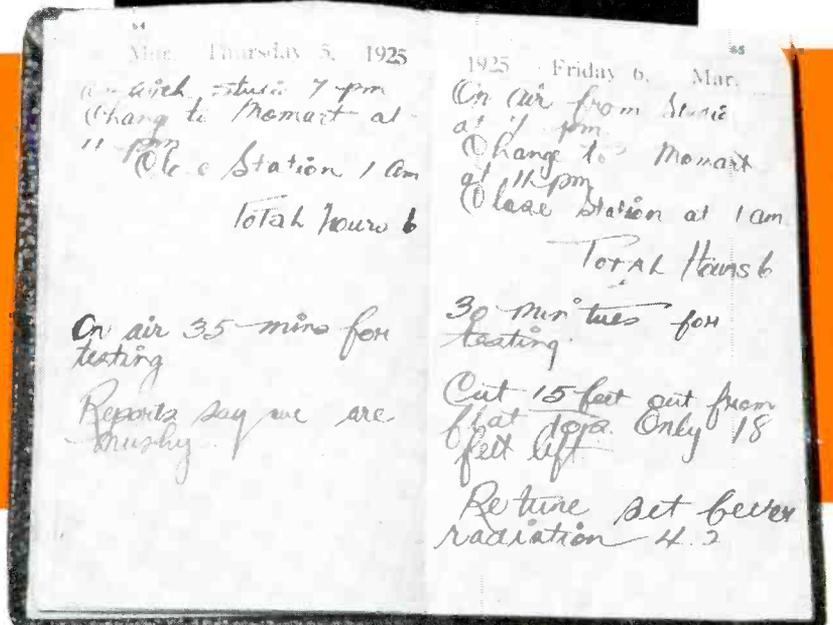
The following entries, written in long-hand, are typical: Thursday, March 5—"On air 35 minutes for testing. Reports say we are mushy." Thursday, March 19—"Distant reception OK Honolulu, Canada, New York as well as Maine. San Diego County seems to still get us lots of so-called mush. Think this is due to harmonics from NPL 'Arc'.

Among the humorous references is one entered on May 4th—"Mr. Gregory gave a political speech but it didn't get any farther away than my amplifier sorry for Mr. Gregory but politics don't go here especially when we are for Cryer." And another entered on May 5th—"Mayor Cryer lead in by majority of 13,000 votes. Looks like old man Cryer is gonna be boss of the Angel City for another four long years and old man Bledso will have to still be a judge. Let's hope he is gonna be a good 1."

We trust he was, 2!



CENTER, RIGHT: Kenneth DeVaney of Crowell-Collier presents the early KFWB log to Harfield Weedon, museum chairman.



LOWER RIGHT: Two open pages of the 1925 log book show the brief, cryptic entries by station engineers.

What is the **RIGHT** And Why is it **WRONG?**

Due to the increasing activity and influence of the extreme right wing, the AFL-CIO Committee on Political Education recently examined the general goals and methods of the men and organizations dedicated to the destruction of trade unions and other democratic institutions. This is a summary of its findings.

No single definition fully encompasses the right wing. It could be called a flock of "maiden antis." But this would portray only a crowd of busy-bodies harmlessly nosing about in everyone's affairs. The right wing is much more than that. *It is dedicated, determined and dangerous. It has money, manpower and militancy.*

Right-wingers basically are "againststers." They set out a whole smorgasbord of spites. They fire salvos of propaganda bombarding individuals and institutions they fear and mistrust. What they are *for*—what positive proposals they advance—is as clear as London fog. For example, *most of them would destroy the social welfare programs which cushion the hardships of old age or unemployment. Yet, they offer no alternative solution.*

They package their programs in the red, white and blue of anti-communism, but theirs is an anti-communism which *weakens democracy* by showering suspicion on democratic institutions and responsible leaders. They are united by a shared vision of a vast internal communist threat. In this nightmare, they see themselves as the forces of good combatting hordes of evil-doers or dupes.

Let's look at the right wing's priority list of "againstisms," bearing in mind that not all extremist groups advocate the entire list, but some do, and almost all espouse most of it.

1. *They are against labor unions.* Along with the U. S. Chamber of Commerce and National Association of Manufacturers, they would begin by enforcing a *national open shop law* and would clamp unions under *anti-trust law* restrictions.

They talk in terms of "*right to work*" and "*free enterprise*." *What they really want is to butcher collective bargaining.* They yearn to *turn back the clock* to

the days when the individual worker was at the *complete mercy* of his employer. They deplore a system which permits workers, through their unions, to sit at a table on a par with employers and bargain over wages and job conditions. They want it ended.

Ignoring the trade union record of constructive anti-communism, many of them charge organized labor is "*infested with Reds*." Some steer clear of such outright lies. They just hint broadly.

2. *They are against Chief Justice Earl Warren of the U. S. Supreme Court.* They want his head. They want him impeached (some want to impeach all nine Justices) because they claim absurdly "more than 33 decisions" by the Supreme Court under Warren's leadership "*avored the communist cause*."

The decisions right-wingers attack actually *defended the basic liberties of all Americans: freedom of speech, freedom of the press, freedom of association, freedom of equal access to public facilities, transportation and schools.*

They practice a clever form of geographical selection. In the south, the rightists exploit racism and assail the school desegregation decision. Elsewhere they beset decisions which have protected citizens from unfair court punishment or congressional harassment on political grounds.

What they are really against are the freedoms which form the heart of our democracy, the constitutional guarantees of the Bill of Rights and the 13th and 14th Amendments. Since it is the Supreme Court which in recent years has guarded these liberties, the Court becomes a focal point of extremist assaults and Warren, as Chief Justice, the whipping boy.

3. *They are against what they call "big government."* By this, they mean strong central government.

They mouth the word "Washington" as if they were chewing lemons. They say "Washington usurps states' rights, individual rights and (this is when they howl the loudest) corporate rights.

What they are *really* against—after 30 years—is *the body of liberal laws enacted under President Franklin D. Roosevelt's New Deal*, the Social Security Act and Wagner Act, among others. In short, *those laws which protect the jaws of the weak against the fists of the strong.*

They claim the New Deal was "communist-controlled." They have never let FDR, nor his wife Eleanor, die. Mention the name Franklin Roosevelt at a right wing meeting and a chorus of boos will erupt sufficient to drown out Niagara Falls.

4. *They are against a truly free public school system which introduces students to new ideas and different viewpoints.* They claim our schools "brainwash" our children into communism. They fear and hate academic freedom just as they fear and hate free speech, and they want to crush it—*because at heart they fear and hate the free democratic process.*

They want to undermine the public school system—which organized labor has done so much to build up—and convert it into an *indoctrination ground for future rightists.* They succeed alarmingly in some areas by *censoring textbooks, capturing school boards and Parent-Teachers Associations, and gagging teachers through intimidation.*

5. *They are against the United Nations.* They dredge up phony arguments and manufacture phony facts to show the U. N. is "communist-dominated," which it isn't. They conveniently overlook the valiant *peace-keeping function* the U. N. has performed in many world crises, the matchless contributions of U. N. special agencies to world health, agriculture and education. They are blind to its unique value as a forum for all the nations of the world. They see it not as a safety valve but as a prison for their vague, saber-rattling concept of "American sovereignty."

6. *They are against any efforts to negotiate a just and lasting peace.* They are the war-whoopers who belittle our government's attempts to reduce world tensions. Civilian right-wingers are back-stopped by an available pool of retired admirals and generals who, *from their armchairs*, savagely second-guess political leaders.

It is the right-wingers who have tried to force the choice between "Red" and "dead," refusing to acknowledge that *Americans can endure alive and free.*

* * *

So far, the general attitudes of the right wing have been described. What happens when these attitudes are translated into action at the community level against a specific, reachable target?

One concrete example—a typical one—occurred in California. It affords an insight into the mind and method of the right wing.

A member of a county school board, who was also a teacher in the school system—a wounded combat veteran of World War II—hosted a meeting in his home of the local chapter of the American Civil Liberties Union. (Violently despised by the rightists, the ACLU is an old and respected organization which defends in court persons whose civil liberties it feels have been violated, whatever their political beliefs. *It has defended both right-wingers and left-wingers.*)

The meeting in question was addressed by a man who had crossed swords with the House Un-American Activities Committee. John Birch Society members decided it was all part of a "communist plot," and determined to get rid of the school board member. *They instigated and master-minded a petition movement to oust the man from his post.*

A campaign of *smear and slander* was launched. *Blatant lies and ugly insinuations about the "subversive" background of the teacher-board member were spread to every home in the community* through handbills, letters and newspaper ads. The extremists hounded the man and his family with threatening phone calls and anonymous notes.

Their tactics worked.

In a special election, a *frightened, suspicious citizenry ousted* the man from his school board position. His teaching job also was on the block.

He died eight months later at 36, leaving a widow and three young children.

Not all the victims of the right-wingers die, but in most cases *their reputations do, and their jobs do.*

Similar incidents have occurred in all corners of the country: *school teachers* run off their jobs by extremist trouble-makers; *textbooks* presenting honest, objective facts about trade unions, or the United Nations, forced out of use; *school boards* intimidated and struck with fear; *liberal clergymen* attacked and defamed; *labor leaders* vilified; responsible community officials slandered.

It has grown too frequent to laugh off, too effective to ignore.

To really understand the dangers posed by the right wing, try to envision—based on what we know of rightist purposes and methods—an American under its control:

Free labor unions would be smashed. Social welfare programs would vanish. Free elections would end. The liberal clergy would be muffled. Dissent would be gagged. Schools would teach only "safe" doctrines of ultra-conservatism. We would become, like Hitler's Germany, a nation of neighbor spying on neighbor.

What Makes A Good Program Schedule?

Sometimes a program director wishes he had a magic wheel he could spin to tell him when and where to place a new show he is preparing for the station schedule. By happenstance, he sometimes guesses right. At other times, he and the sponsor wish he hadn't been born.

Jon Rice, program director of an educational television station in San Francisco, KQED, recently offered his p-d colleagues some pointers on how to guess right the first time. In case any technician in our midst should be unlucky enough to become a program director, we pass these pointers on to you:

1. There is no sensible time in the whole day's schedule to put children's programs. Any time that we select, the kids are watching something else, or they are eating supper. We have tried to research the Bay Area eating habits, and I can assure you that all the children in the Bay Area eat constantly from about 4:30 to 7:30 every evening. Our answer—we run our children's shows from 5 to 6:30 because that is right in the middle of the 3-hour meal period.

2. Major public affairs programs should never start before 8:30. Kids are presumably finished dinner by then, and sometimes even the dishes have been washed and there is a chance for adults to concentrate.

3. KQED has experimented with all kinds of continuity: across the board at a given hour, a night dedicated to what we thought might be a special audience, etc. As far as I am concerned, no such scheme has any real merit. Our audience is made up of over half a million individuals. Whenever we try to package them into groups, the wrapping breaks.

4. We ignore the run-of-the-mill competition of commercial television. But be careful about the first-rate offerings. What did you run opposite the late, lamented "Playhouse 90," for example? These are the spots when we try to use the weak links in our schedule or the programs for highly-specialized interests.

5. When programs are worth a rerun, we schedule the reruns on different days with one showing early in the evening and one late to meet different viewing habits. This pays off. Audience measurements made on the first run of "Casal's Master Class" gave our three showings of this series a total audience almost as large as "Open End," our most popular program.

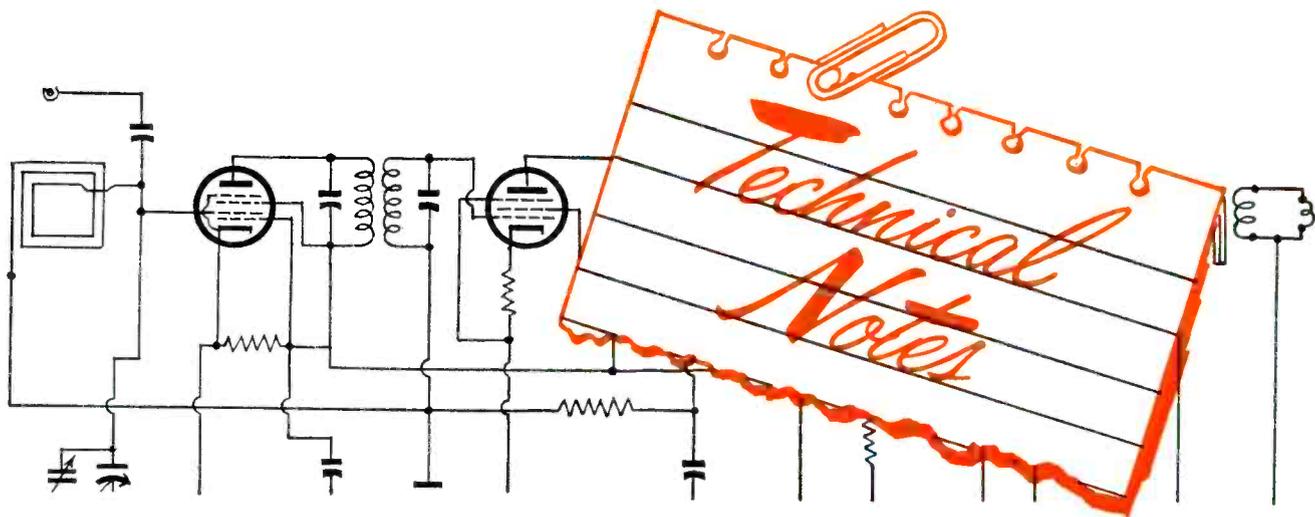
6. Do not schedule a program without scheduling an audience. None of us gives enough attention to publicity, advertising and on-the-air promotion, and we are stupid in this matter.

7. Do not decide on a subject that you need for your schedule and then look for the talent. The more certain road to success is to find outstanding talent and then build a program around that talent.

8. Do not underestimate the intelligence of your audience or overestimate that audience's willingness to accept a boring presentation because a program is "worth-while."

If we want a schedule that will build and hold an audience and if we want that audience to become increasingly responsive to, and motivated by, the kinds of programs that the ETV has to offer, then quality must be our constant ultimate goal. We must strive and drive for excellence in everything we broadcast—for that rare bird, the outstanding teacher, or moderator, or commentator; for a fresh form of presentation, or a break-through in format; for elegance and excellence in the art work, the directing, the production values.

For the main point in building a good program schedule is to program quality adjacent to quality throughout the broadcast day and week.



SIGNAL IN THE CORNER POCKET

A new path for long distance radio signals that should expand and improve radio communications has been discovered by a Stanford University research engineer.

Dr. Robert B. Fenwick, a research associate in Stanford's Radioscience Laboratory, has found that signals can travel regularly around the world along the underside of the ionosphere—that 150-mile-thick blanket of ionized air formed by the sun's radiation and lying approximately 50 miles above the earth's surface.

Dr. Fenwick announced his findings August 14 at a meeting of government and industry research experts at the Stanford Electronics Laboratories. His three years' work on the project, which earned him the doctoral degree in electrical engineering, was supported by the Office of Naval Research.

Ordinary long distance radio communications depend on bouncing signals back and forth between earth and the ionosphere in giant hops from the transmitter to the receiver. But such signals are often plagued by daytime weakness.

By using Dr. Fenwick's method two stations in daylight, when their direct path of communication is "blacked out" by such problems, may be able to use a round-the-world (RTW) path to contact each other.

The long way around takes one-seventh of a second by radio. On the night side of the earth, the signals follow the ionosphere and avoid losses incurred in ground reflections.

Use of the method depends on finding a "tilt" in the ionosphere near each station that will give a signal the right bounce into its RTW path and then off of it to the receiver. It resembles a two-cushion billiard shot, not counting the multiple ionosphere-to-ionosphere bounces between the first ground-to-ionosphere (trans-

mitting) bounce and the final ionosphere-to-ground (receiving bounce).

"Tilts" in the ionosphere occur daily and can be located on maps of these upper regions, Dr. Fenwick said. Such maps, based on average conditions, are prepared by the Central Radio Propagation Laboratory of the National Bureau of Standards.

Present radio circuits are designed on the assumption that the ionosphere is smoothly parallel to the earth's surface, and tilting is ignored. The new studies have shown the importance of tilts.

Prof. O. G. Villard Jr., Radioscience Laboratory director who supervised the investigations, said Dr. Fenwick's work "has proved the importance of ionosphere-to-ionosphere reflections whose existence had been suspected but in a large measure ignored by other workers.

"Although these reflections are available over a given path for a limited time—perhaps five or six hours each day—a number of improvements are possible if one takes proper advantage of them," he said. "For example:

"1. Higher frequencies than those predicted by conventional means may be used, thus making more channel space available in the long distance radio spectrum;

"2. Transmission is less vulnerable to accidental or intentional interference along the ionosphere-to-ionosphere part of the path; and

"3. Transmission time can be lengthened for long distance paths and hence their communications reliability can be improved."

FCC, CANADA AGREE ON FM

The FCC has worked out an FM allocation agreement with Canada involving more than half of the channels assigned in the U.S.

(Continued on page 15)

It involves more than 1,300 FM assignments that are located within 250 miles of the Canadian border.

The Commission pointed out that the new agreement does not alter the 1947 FM agreement which set the terms under which assignments are to be made. The new settlement is designed to replace an interim arrangement of assignments made Aug. 10, 1961.

The channels listed represent more than half of those assigned in the continental U.S. and Alaska under the FM allocations table recently released by the Commission.

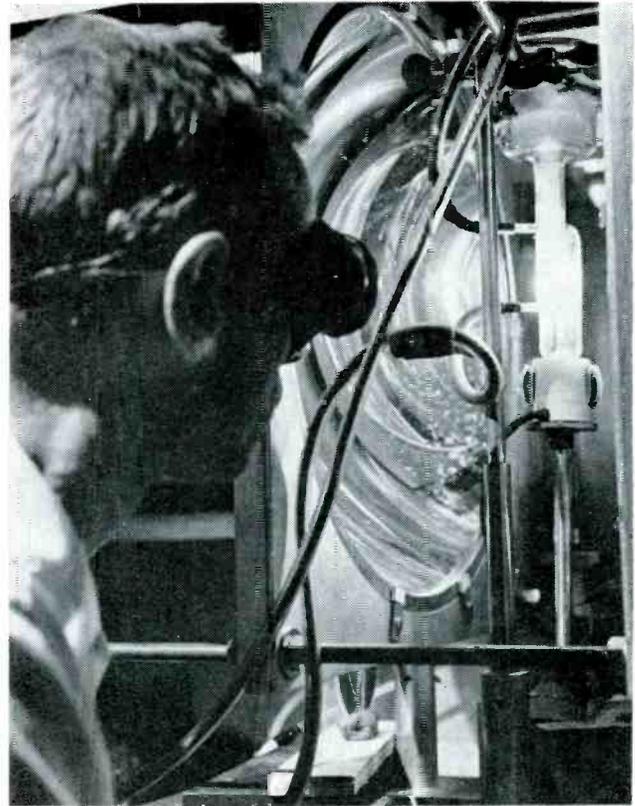
PREDICTION: FM TO PASS AM

In the 1970's, FM stations will surpass the now-dominant AM facilities in the amount of revenue they bring in, according to a series of statistical projections compiled by the Harvard Graduate School of Business Administration.

The Harvard report goes into the relative roles AM and FM will occupy in the next decade or so. It projects the revenues of FM independent stations from a tiny \$1.4 million in 1956 to \$13.7 in 1963 to a substantial \$38.2 million in 1966 and on to \$374 million in 1973.

And then the story gets even more interesting. FM's \$374 million in 1973 is surpassed by AM's \$500 million plus but, according to the Harvard projection, AM's total started downward in 1970. The dramatic moment when FM rises above AM comes in late 1974. From then on, an FM enthusiast can see the revenue trend mounting sharply as AM continues to fall.

LASER EXPERIMENT



Robert Duncan, an RCA physicist, is shown experimenting with new continuous wave calcium fluoride dysprosium-doped laser. The laser crystal is obscured by the light source next to it. The whole apparatus is enclosed by two hemispherical mirrors which focus the light on the crystal.

Barkan Sees Liberals Targets of Ultras: Urges COPE \$1 Aid

Director Al Barkan of the AFL-CIO Committee on Political Education this month called on all union members to help COPE "get up a full head of steam" for the crucial 1964 elections.

"Next year will be a showdown year for a large group of Senate liberals," Barkan said. "They will be targets for the heavy ammunition of every right-wing crowd in the nation."

Among these liberals, members of the Senate Class of 1958, Barkan listed Edmund Muskie (Maine), Gale McGee (Wyo.), Vance Hartke (Ind.), Phil Hart (Mich.), Stephen M. Young (Ohio), Eugene McCarthy (Minn.), Howard Cannon (Nev.), Harrison Williams (N. J.), Frank Moss (Utah), Robert Byrd (W. Va.), Thomas Dodd (Conn.), Claire Engle (Calif.).

Other liberal senators up for reelection, though not members of the Class of '58, are Quentin Burdick (N. D.), Ralph Yarborough (Texas), William Proxmire (Wis.), Mike Mansfield (Mont.), Albert Gore (Tenn.).

These 17 senators, Barkan pointed out, have a composite voting record on the COPE scorecard of 447 "right" votes on key legislation to only 53 "wrong" votes.

"One way union members can bolster chances for reelection of these men is to give a dollar to COPE," Barkan said. "We know the forces of reaction will be plunging fortunes into the campaigns of ultra-conservatives in an effort to unseat as many liberals as they can.

"We can't match them dollar for dollar—we never could—but we must have enough to help liberal candidates conduct adequate campaigns.

"The blunt fact is, liberal candidates have nowhere else to turn for financial aid than the labor movement."

Barkan pointed out, "There is more at stake than simply the winning and losing of a cluster of seats in the Senate. The liberals up for election in 1964 have been building up seniority during the past six years. In the Senate, seniority is the crucial key to committee leadership and influence, and it is the committees and their subcommittees that shape bills and either boost or bury them.

"Presently, most committees founder under the conservative leadership of Dixiecrats, who flash the red light to block good legislation. If liberals can continue to accumulate seniority, they will eventually take over as chairmen of important committees, smoothing the path for progressive laws."

"It would be a tragedy for the trade union movement and the nation," Barkan said, "if defaulted to the John Birchers, the other right-wingers and the big-wigs of industry and finance by being unable to help the men who help us in Congress."

He urged union members to "contribute to your own welfare and future security by contributing a dollar to COPE."



STATION BREAKS

NETWORK LABOR NEWSMEN

The Columbia Broadcasting System has become the first national network to hire a specialist in labor-management news. Stanley Levey, known for his clear and objective reporting, was a labor reporter for *The New York Times* for 15 years before taking this new post. He worked briefly for WCBS-TV and WCBS-AM, New York, during the lengthy newspaper strike. He'll do regular day-by-day coverage of labor events, plus special happenings.



POWER OF COMMERCIALS

Television commercials have played an important role in encouraging young Negroes to fight for their rights, a top authority on the use and meaning of words believes.

S. I. Hayakawa, speaking to the 1963 International Conference on General Semantics in New York City, said that the commercials promised Negroes anything they wanted—provided they have the money to pay for it. Nothing was said about exclusion because of race.

WORLD BROTHERHOOD FILM

A new black and white sound film, taken by a camera crew on a 12,000-mile swing around the world and picturing labor's involvement in international affairs, has been produced for the AFL-CIO, and is being aired in September by many television stations.

Called "In Common Brotherhood," the movie was prepared especially for the Labor Day weekend.

Some 25 per cent of the AFL-CIO's annual income is spent on international affairs—helping build free unions all over the world wherever help is asked. Through "In Common Brotherhood" we hope to share with all Americans, labor's investment in democracy.

The television show includes views of President Kennedy as he spoke recently in divided Berlin, and as he greeted the first graduating class of the American Institute for Free Labor Development in the White House rose garden. Also shown are scenes filmed in Caracas, Tel Aviv, Geneva, Kenya, Uganda, Washington, D. C. and other locations.

STABLE JOB CONNECTIONS

While unemployment in the United States is heavy, most American workers who have jobs have stable employment connections and change employers infrequently.

These findings by the U.S. Department of Labor report that men who now have jobs have been with the same employer about 5½ years on the average, and women for 3 years. This is a better showing than 6 years ago, when a previous study was made.

For both men and women, job tenure increases steadily with age but is generally lower at all ages for women than for men. Men 25 to 34 years of age average 3½ years on their current job while those 55 to 64 average about 15 years; for women, the average at age 55 to 64 years was 8 years, compared with 2 years at the younger age.

CHEMICAL REACTION

Goldwater backers have been using the chemical symbols for gold and water—Au H₂O—on bumper stickers to plug their candidate. . . . Those who disagree might use stickers reading, "Not That FeS₂ H₂O" . . . FeS₂ is the symbol for fool's gold.

LAST LAUGH



CARL STAMWITZ
1012 N ARDMORE
LOS ANGELES 29 CALIF
TU-45