

RADIO, TV and RECORDING



FEBRUARY, 1955

TECHNICIAN-ENGINEER





COMMENTARY

Wages and the State of the Union

PRESIDENT EISENHOWER announced in his State of the Union message, last month, that he'd seek changes in some of the nation's labor laws. After the debacle of the Administration's proposed amendments to Taft-Hartley last year, the laboring man is inclined to take a wait-and-see attitude about labor legislation in 1955, and he wonders if the President will really accomplish these changes.

The situation is somewhat improved by the fact that the 84th Congress, now in session, is more liberal than the 83rd. But even labor leaders are not optimistic about the possibility of major changes in the National Labor Relations Act.

The President renewed the request he made last year for Taft-Hartley amendments. These are amendments

which caused Martin Durkin to resign his Cabinet post.

As AFL President George Meany has pointed out, he failed to come to grips with the overriding problem of Section 14(b)—the provision of the Taft Act that permits the states to place greater restrictions on union security than those provided in the Federal law. It is this section which is enabling many states to pass the notorious "right-to-work" laws.

Probably, the major emphasis in labor legislation this year will be upon the minimum wage law. Both the AFL and CIO are pushing for a \$1.25 an hour minimum wage. The President, however, says that 90 cents—15 cents higher than the present figure—is "warranted by present economic conditions." Congress must now decide between the two.

One Law for John, Another for James

A RECENT editorial in *The Minneapolis Labor Review* is in close harmony with our commentary of last issue entitled, "Assassination by Extension." It discusses the case against Roy Roberts, publisher of the *Kansas City Star*, for alleged restraint of trade, which has been dismissed for lack of sufficient evidence.

Says the Minneapolis publication:

"If that is to continue to be the well established rule for all against whom indictments are brought then the people will have gained something by the proceedings against Roberts.

"It would indeed be a step toward restoring the good old American principle that a person is considered innocent until he is proven guilty beyond a reasonable doubt.

"The sad truth is, however, that far too many people consider an indictment of anyone the proof that they are guilty.

"Think of the scores of people whose reputations have been ruined and whose employment professional, business or political careers have been ruined by the mean and hateful practice of the smear.

"Blackstone said long ago 'there cannot be one law for John and another for James.' It is to be hoped that the law that Attorney General Brownell called up for the dismissal of the indictment against wealthy, powerful Roy Roberts, will also apply to the weak, humble and uninfluential.

"That would mean that once again we are proceeding according to the Constitution."

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VOLUME 4 17  17 NUMBER 2
PRINTED ON UNION MADE PAPER

Published monthly by the International Brotherhood of Electrical Workers, AFL, 1200 Fifteenth St., N. W., Washington, D. C., for the men and women in the recording, radio and television industries.

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Entered February 20, 1952 as second-class matter at Washington, D. C., under Act of August 24, 1912. Subscription Price: United States and Canada, \$2 per year, in advance.

Fifteen Million Trade Unionists Unite

AFL-CIO Merger Agreement is signed following Winter Meeting of the AFL Executive Council in Miami. New constitution must be drawn up and ratified by both conventions before unity is actually achieved.



THE NATION'S TOP labor leaders, George Meany and Walter Reuther, walk from the meeting room in a Miami Beach hotel where the AFL-CIO merger was concluded. Behind them are Albert Hayes of the AFL Machinists; David MacDonald of the CIO Steelworkers; Harry Bates of the AFL Bricklayers; Jim Carey, CIO Secretary; and William Schnitzler, AFL Secretary.

A MOMENTOUS new chapter in labor history was written in Miami, Fla., on February 9 when AFL President George Meany and President Walter Reuther of the CIO signed an agreement to carry out the merger of America's two great labor organizations.

The agreement, with the prior approval of a 20-man joint unity committee, was presented to the Executive Council of the AFL on February 10 and unanimously approved. Similar action is expected by the CIO Executive Council which is to meet later in the month.

After the Executive Councils ratify the agreement representatives of the two organizations will sit down to draft a constitution which will then be submitted to

AFL and CIO national conventions later this year, and finally to a joint convention. Leaders of both organizations said they expect approval to come by the end of the year. "We must rise above the personal equation," Mr. Reuther said, "I am very glad to step down and help support George Meany to head the new Federation and I will be happy to serve in any way I can be helpful." "We will go into 1956 with a united labor movement," Mr. Meany predicted.

At a press conference which followed the historic signing Meany and Reuther issued this joint statement: "We are happy that, in our way, we have been able to help bring about unity of the American labor movement



AFL LEADERS George Meany and William Schnitzler meet the press following the regular meeting of the AFL Executive Council. The merger talks began when the Council meeting concluded.



THE MERGER was the topic for discussion as George Meany and Walter Reuther shared newsreel microphones in a Miami Beach hotel room.

at a time when the unity of all is most urgently needed in the face of the Communist threat to world peace and civilization.

"This agreement marks the end of the division in the free trade union movement that has existed for almost 20 years. We pledge that as unity develops, labor in America will place itself at the service of the American people and will help build a better nation and a stronger world.

"Under our present plan unions will continue to conduct their own collective bargaining with employers just as they have done in the past. The agreement provides a voluntary—not compulsory—merger of trade unions in the same field."

Simultaneously with the signing of the merger agreement came the announcement that the AFL-CIO No Raid Pact would be continued for another two years. This guarantees all unions and the public that the swift progress made during the past two years toward the elimination of raids and jurisdictional disputes will continue.

White House Tape Agreement Reached

The continuing cooperation of the IBEW with NABET was demonstrated in a material way when the Press Conference of the President of the United States admitted an engineer from the broadcasting industry on February 2, 1955.

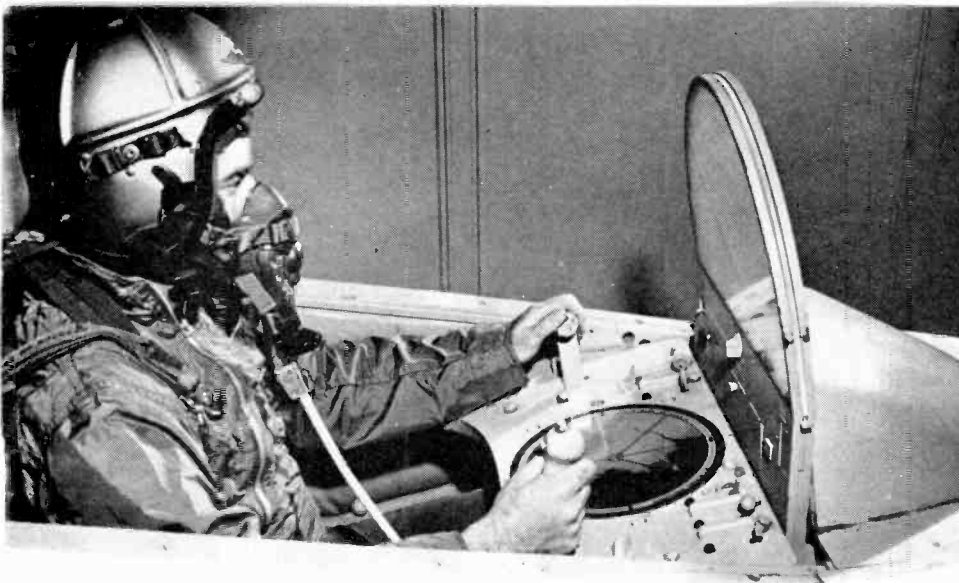
For numerous reasons—lack of space, editing complications and the restrictions imposed by Secret Service regulations—the tape recordings of previous conferences were made by Signal Corps personnel and the "finished product" was fed to the four AM network recording rooms. With the recent advent of film coverage on a pool basis, there was no longer any substantial reason why a pool pickup for radio by the participating networks could not be made.

Press Secretary James Hagerty announced on January 27 that, as a result of a conference between the interested parties, and subject to restrictions on procedure, admission and editing, one network engineer would be admitted to the weekly conferences. The assignment will be rotated by CBS, NBC, ABC and Mutual. Hence, both NABET and IBEW will benefit by the work opportunities provided.

The arrangement was worked out by Lewis Shollenberger, CBS *Director of Special Events* in Washington, who represented the combined networks, Mr. Hagerty and Albert O. Hardy, International Representative of the IBEW, for the IBEW and NABET.



PRESIDENT EISENHOWER answers a question by Laurence Burd, standing, extreme right, of the Chicago Tribune at his news conference January 19. Seated along wall, facing camera, are, left to right, James Hagerty, Murray Snyder and Wayne Hawks, all of the White House staff.



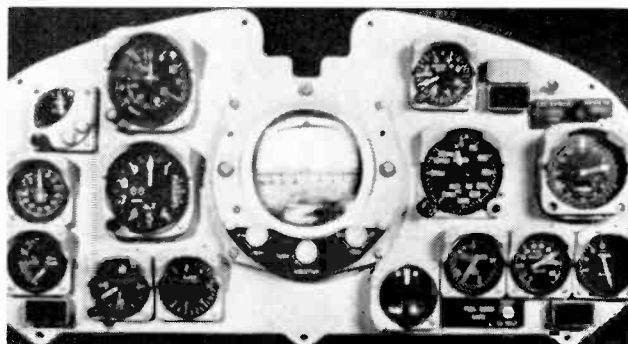
SIDE VIEW of mock-up cockpit for light Naval aircraft, showing new concept of instrumentation and controls. The semi-circular screen in front of the pilot and the round screen directly below are flat-plate television tubes which would comprise the basic instrumentation envisioned by the Long Range Office of Naval Research—Bureau of Aeronautics program. Naval researchers are also working toward simplified controls, as shown here. The pilot's left hand grasps the throttle, and his right hand is on the control stick.

Roger Wilco, Panning Out

Flat television picture tubes are expected to reduce aircraft instrument panels to two simple units. Navy pushes basic research work.

BY 1958 the U. S. Navy expects to have its aircraft pilots panning around the clouds by means of two flat television tubes, a short throttle, and one highly-capable pogo stick. The complex maze of cockpit instruments which surrounds the average pilot today will be no more. At any rate, reasonable facimiles of most of these instruments will be somewhere down among the wires and gismoes of the plane's power plant. They will be monitored by a series of switches, and flashed upon the TV tubes as they are needed.

The West Coast Electronics Division of Willys Motors has already developed a television tube which is supposed to make a two-instrument panel possible. It was shown to representatives of the aircraft industry,



THE FIRST simplified aircraft instrument panel to be developed jointly by the Bureau of Aeronautics and the Office of Naval Research. It was developed and evaluated in 1953. The large instrument in the center combines both pictorial horizon and directional horizon. This early version of a simplified panel had a new system of warning lights, a self-contained rho-theta indicator, a simplified altimeter, and an angle of attack indicator.

last month, at a meeting held at the El Segundo, Calif., plant of Douglas Aircraft Co., Inc., which is prime contractor and sub-contract coordinator for the continuing research project.

As Navy researchers now envision the cockpit of 1958, there will be a large semi-circular plate mounted vertically and directly in front of the pilot. (See picture at top of page.) This will be a flat TV tube, which will be transparent. The pilot will be able to see through it for contact flying in clear weather, but when he starts flying "blind," the tube will show via descriptive lines, radar, infra-red, or some such, the actual terrain ahead. Cloudy or clear, this "instrument" will also show the altitude, speed, and attitude of the aircraft. This amazing picture of tomorrow will tell the pilot all he wants to know to fly the aircraft about its three axes—pitch, roll, and yaw.

A TECHNICIAN examines the transparent flat television tube developed for the simplified aircraft instrument panel by the West Coast Electronics Division of Willys Motors.



The second instrument of the two-instrument cockpit will be a round TV-tube plate mounted below the first, like the tilted monitor on a broadcasting console. Broad physical features of the earth below would be depicted in a manner similar to that used by the vertical tube. The appearance will be somewhat like that of a radar map.

Information necessary for navigation or traffic control will be shown on this instrument. By means of calibrations around the rim, the number of miles to the pilot's base, the amount of fuel remaining, and similar information would be shown in a way that makes the information easy to read and assimilate.

INFORMATION USED AS NEEDED

Other instruments now necessary to determine fuel consumption, power settings, and other data will be integrated into the two instruments. Because TV tubes are used, several items of information can be selectively imposed in the same area, to be used as needed.

The TV tubes will not be used to present an actual picture of what is happening in the vicinity of the aircraft. Rather, the display which the pilot sees would be an analogy of the visual world which he would see if flying by contact, i.e., in clear weather. In this way the pilot gets a more readily understood picture of the visible world than that presented by the dials and pointers of conventional instruments.

Another aim of the Navy's long-range program is to reduce the control system to two basic controls: a control stick and a throttle. Six switches would be used to select specific types of information needed for take-off, landing, for traffic control, and other specific situations.

The Navy expects that the first experimental aircraft using this instrument and control system will be flown about 1958.

The goal of the long-range aircraft instrumentation program conducted by the Office of Naval Research and

the Bureau of Aeronautics is the ability to fly by instruments at least as well as in visual conditions. It aims to discover the proper way of presenting information and to devise fool-proof equipment to reduce instrument training time and increase flight safety. An estimated 75 per cent reduction in instrument training time could result from this program.

The program has been made possible through the cooperation of most of the aircraft instrument industry. Although engaged in a highly competitive field, these firms have exchanged information on new developments connected with this program. Interim results of the program were made available to the entire airframe industry at the recent meeting.

This new concept in aircraft instrumentation—simulation of actual flight conditions—is based upon research in human engineering, which is the science of fitting machines to the capabilities of humans. The information which the pilot actually needs to fly an aircraft had first to be determined. Display requirements compatible with the human sensory system were then devised. They are based upon several years of research into precisely how a man receives information via the senses of sight, hearing and touch, how rapidly and in what amounts he can assimilate and coordinate certain types of information.

REDUCING MARGIN FOR ERROR

With these human capacities and limitations as background, technical requirements for a new type of display system were devised. They are now being engineered into a unified system. The basic idea is to produce a system that will require the least number of mental computations by the pilot. Pilot errors due to misreading instruments or confusion in integrating the mass of varied information on his instruments will thus be reduced.

Representatives of the airframe industry who attended the recent demonstration saw a mockup of an aircraft cockpit with completely integrated instrumentation for carrier all-weather flight. The cockpit was constructed by the Douglas Aircraft Company. It was designed in accordance with specifications established by the Bureau of Aeronautics and the Office of Naval Research.

Although the first aircraft with this advanced instrumentation will not be flown for about three years, many components of the program will be used in existing and new aircraft as the components are developed. The first interim instrument panel of this program is soon to be installed in aircraft which are in production. The first simplified panel to be developed is now being tested. It has relatively conventional instrument displays but fewer instruments than present panels and integration of the information has been definitely improved.

Conelrad Film Under Way

The Air Force is producing a half-hour film for television audiences on Conelrad, the joint Civil Defense-Air Force plan for broadcasting during an air raid alert. The film is designed to show the nation's TV viewers how the Conelrad system will keep the public warned in event of enemy air attack, while keeping enemy bombers from "homing" on station radio frequencies.

Production of the special movie began on January 20 at Wright-Patterson Air Force Base in Ohio. It is expected to be completed in March.

Color comes to the Twin Cities

Members of Local 292—floormen,
cameramen, control-room men —
put 30-minute show on the air.

IBEW broadcasting engineers of Local 292, Minneapolis and St. Paul, Minn., recently put on the air the first commercially-sponsored color television program to originate in the Northwest.

The 30-minute program called "Country Holiday," originated on Channel 4, WCCO-TV, late in the night of December 29. The floormen, the cameramen, the control room men, were all IBEW members.

The program culminated many hours of study in the new medium of color television. Last July, the extensive color television equipment purchased by the station



INSPECTING the controls of a WCCO-TV color camera are Henry F. Shepherd, Jr., studio supervisor, standing, and Jack Madison.

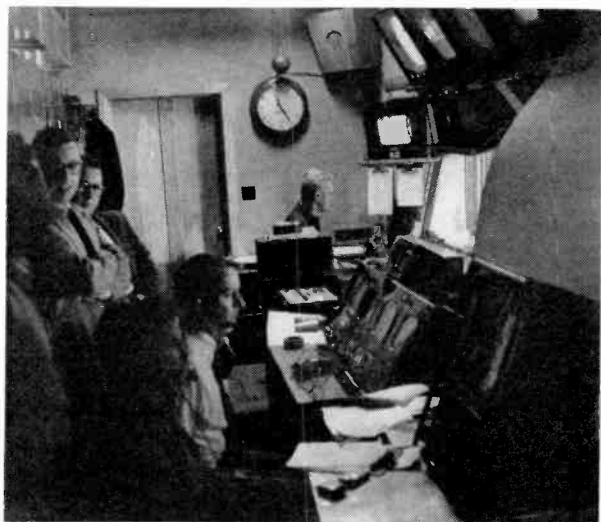
arrived and new rack space in the control room had to be added. This afforded proper segregation of the black and white and the color operations.

Since last summer the station has provided its viewers with CBS network color TV programs and a regularly scheduled 30-minute color bar test pattern each Saturday morning. Closed circuit color demonstrations have been presented to interested groups from time to time, so that local organizations might view at first hand the potentialities of the new medium.

Recently, the station's director of engineering, John M. Sherman, provided the Twin Cities IRE Section members with a color demonstration, assisted by the IBEW members of his staff.

FINALLY, at 11 p. m., December 29, the first locally sponsored colorcast went on the air. Appropriately, the advertising agency which provided the first sponsors for black-and-white TV over WCCO-TV—Olmstead and Foley, of Minneapolis—also represented the sponsors of the first colorcast.

The director of "Country Holiday," Harry Jones, described the first colorcast as "a sophisticated rural scene." Local personality, Clellen Card, was master of ceremonies, delivering one of his most popular character



THE CONTROL ROOM just before a studio color telecast. At the controls are Gene Brautigam, audio engineer; Harry Jones, director, and Henry F. Shepherd. Other staffers stand by.



SUPERVISOR Shepherd adjusts the blue orth on the color camera, assisted by William Baeten, center, and Jack Madison.



ON THE AIR with "Country Holiday," a local color show. The entertainers are Clellan Card and Ed Vichman.

skits, "The Football Coach," which you see illustrated.

Following the general variety program format, the show featured a group of local dancers, music by WCCO-Radio's Red River Valley Gang, and vocals by Mary Davis, a Twin Cities songstress.

Crosby's Crooning Stirrs Up the Natives

A native chieftain in Kenya, East Africa, who listens to disc jockey sessions via short wave radio, thinks Bing Crosby's crooning is "Mzuri sana," and backs up his high opinion of the "groaner" with the offer of a large goat as a token of his appreciation.

In a recent letter to Zenith Radio Corporation, Michael H. Coyle, an officer in the Divisional Police Headquarters, Lokitaung, Turkana Province, near the borders of Kenya, Ethiopia and the Sudan, reported the bizarre circumstances that led up to the chief's generous offer.

Coyle and his fellow officers discovered, under some discarded army equipment, a Zenith short wave radio (Model 5B402T) which was manufactured by the Chi-

cago radio-TV firm in 1947. After a clean-up job and some minor repairs, the radio operated satisfactorily. And since then it has been performing yeoman service for Coyle, with the exception of a hair raising reception failure caused by an 18-inch snake which took up residence in the set for a brief period.

The Zenith radio, Coyle wrote "had been introduced to a wild and wooly audience whose appreciation can be judged when after a recent disc session, the local chief came up to me with one of his men bringing up the rear with a large goat." The chief addressed Coyle with "I, Nakinay, have brought this goat as a present for you to give that man when you meet him, his singing was Mzuri sana."

"He had been listening to Bing," concluded Coyle who believes that if Bob Hope can beat this, he wins a camel.

National Television Servicemen's Week

A "National Television Servicemen's Week" saluting the thousands of service dealers and technicians who since 1946 have installed and maintained more than 30,000,000 home TV sets will be sponsored by the Radio Corporation of America during the period of March 7 to 12.

First recognition of its kind ever afforded electronics technicians, National TV Servicemen's Week has been registered with the U. S. Chamber of Commerce, and will be marked by a comprehensive RCA advertising and promotion campaign designed to focus maximum consumer and industry attention on the nation's more than 100,000 servicemen, most of whom are engaged in home radio and TV maintenance, he said.

In addition, RCA will award prizes totaling more than \$10,000 to radio-TV service dealers initiating the most effective National Week promotions at the neighborhood level.

A complete set of five RCA test instruments for color TV servicing, valued at \$1,337, will be awarded in each of RCA's eight sales regions. Dealers can qualify for the competition merely by describing, in 50 words or less, their efforts to publicize and promote National TV Servicemen's Week. The entries, acceptable up to midnight, April 30, will be judged on the basis of originality and initiative by a board of editors of leading radio and TV service trade publications.

The National Television Servicemen's Week will be symbolized by an RCA "Electronic Statuette" which will be displayed by thousands of service dealers from coast to coast. The Electronic Statuette, available to dealers from their RCA tube distributors, is the figure of a man holding aloft an electronic symbol. The 14-inch figure, gold-finished, stands on a black plastic base inscribed with an RCA dedication to TV servicemen.

The PLOTKIN REPORT

stirs the broadcasting industry

Senate investigators dig into the activities of the Federal Communications Commission to study work load and administrative problems.

AS we go to press, the words of the Plotkin Report to the Senate Committee on Interstate and Foreign Commerce are still echoing at Capitol Hill. The letter of transmittal which accompanies the Report points out that no comprehensive study or analysis has been made in the general field of communications, in terms of the application and operation of the Communications Act, since the Act was passed by Congress in 1934.

The letter goes on to say that the American people have very substantial interests in the industry. It points out that there are more families in the United States who have receiving sets than those who have indoor plumbing, telephones or automobiles. Further, the opinion is advanced that the investment in receiving sets is greater than the combined investment of the broadcasters who serve them.

At our press time, CBS was the only network which had made a public statement—roundly denouncing the Plotkin Report—labeled by President Frank Stanton as “mistaken, impractical and unwise.” NBC is known to be planning a full affiliates committee meeting early this Spring, which presumably will take up the subject. ABC is said to be “studying” the Report.

CRITICISM of the Federal Communications Commission is, for the most part, only implied. No action on the part of the Commission in the areas covered by the Report is assumed to be due to the fact that the Commission has been unable to secure sufficient appropriations to finance a large scale investigation. Recognition of the fact that most of the pressures on the Commission are for action on applications is mentioned—together with the assumption that the detailed activities of the Commission are so engrossing that “regulations of a continuing nature” are neglected. A very telling statement is made, however, in this last category: “The Commission should have concern for what comes out of its feverish application-processing activity. It must be induced and aided to address itself to the regulatory job described here.”

A further critical comment is made regarding the handling of several cases of deintermixture which have

been formerly presented to the Commission. “All but one have been summarily denied without a hearing, primarily on the ground that the VHF applicants have already expended large sums of money in prosecuting their applications and that they should not lose the benefits of those expenditures.”

Much of the Report is concerned with the UHF vs. VHF problem; deintermixture, regulation to provide for compulsory inclusion of all channels on receivers shipped in interstate commerce, removal of the excise tax from all-channel receivers and many other facets of the competitive aspects of the problem are advanced. One of the most notable proposals in the entire Report is that all television stations should be moved to the UHF band—according to the Report, “making a nation-wide television system possible.” The Report recognizes, however, “serious disadvantages in such a move.”

AN entire section of the Report is entitled “The Network Problem.” Exclusivity, time options (the undesirability of) networks acting as national spot representatives and the ownership of stations and AM and TV networks by the same organization are subjects given lengthy treatment. The multiple ownership of stations is also purported to be shown to be a great advantage to the owners and the Report suggests that “a careful study should be undertaken as to whether multiple owners have abused the power inherent in the ownership of multiple stations by securing desirable affiliates by methods which constitute violations of the anti-trust laws.”

The Report concludes that “it is not mere accident or sheer coincidence” which has led to the joining of such apparently different subjects as UHF and network-affiliate relationships. Its authors believe that these are facets of a common problem. The authors’ comment: “It is only fair to say that radio and televisions would be far poorer and less exciting media if it were not for the important role played by network broadcasting” is one of the new bright spots in the Report.

It is quite likely that the Committee will be led to schedule full and public hearings on the subjects covered in the Report.



3,660,000 Scouts Build For a Better Tomorrow

International Scout Conference. Certainly this is a vital force for developing tomorrow's manhood.

The BSA submits an annual report to Congress, which granted the organization a Federal charter in 1916. In a recent report, the organization told how American Boy Scouts had contributed camping equipment valued at \$51,000 to fellow Scouts in South Korea.

Last September Boy Scouts distributed a million fire prevention posters. The organization reports that, during one year, 140 Boy Scouts were honored by the National Court of Honor for saving or trying to save a life.

We salute the BSA upon its 45th birthday. May it always "be prepared" for tomorrow and the generations which are to come.

ON February 8, 1910, the Boy Scouts of America was incorporated at Washington, D. C. During the ensuing 45 years almost 23 million American boys and their leaders have taken the oath of allegiance to this great youth-building organization. On their honor, these millions have promised to do their best for God and their country. They have become soldiers, sailors, and marines in time of war. They have become civic and industrial leaders in time of peace. Countless members of labor unions remember with fondness their years between age 12 and age 15 when they rubbed two sticks together to make fire, helped old ladies across the street, and short-sheeted brother scouts camping out in the wilds of U. S. suburbia.

This month, in observance of the 45th anniversary of the American movement, many churches and civic organizations will pay tribute with exhibits, talks, and special programs. Organized Labor can do no less.

There are 3,660,000 Cub Scouts, Boy Scouts, Explorers and their adult leaders hiking around the nation this year. Their laws of honesty, courtesy, thriftiness, and the rest are perhaps the strongest laws against juvenile delinquency that we have today.

The Boy Scouts of America is organized through 540 local councils, throughout the United States, Alaska, Hawaii, the Canal Zone, Puerto Rico, the Virgin Islands, and Guam. In addition, the BSA has established local councils in Germany and Japan for the sons of American service personnel in those countries. Altogether, there are 32,000 cub packs, 51,000 scout troops, and 12,000 explorer units.

There are Boy Scouts in 56 nations belonging to the

Congressmen Discuss TV on Capitol Hill

Televising Congress would "turn it into a show," says Leo O'Brien, a TV and radio commentator by profession and a New York Congressman by choice.

He told his colleagues in a House speech that he stands squarely behind Speaker Sam Rayburn's ban on TV cameras in the Chamber and in House Committee rooms.

But Rep. Clare E. Hoffman (R-Mich.), a 79-year-old star performer at Congressional hearings, said he thought Congress should be televised. It wouldn't be anything like the wrestling matches on TV, he assured the House.

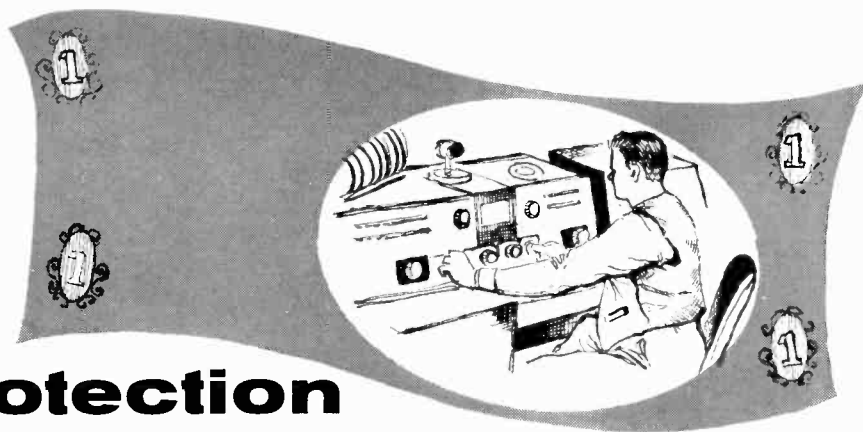
"Any one as old and who shows the ravages of the years as I do," Hoffman explained, "can't hope for any advantage on television."

"The people can judge when a fella's a ham," Hoffman said. Besides Congressmen wouldn't use "bad language." That's been ruled out by the Senate, he said, referring to the censure of Sen. Joseph R. McCarthy (R-Wis.).

Hoffman said the House has a number of "young, eloquent" men who would benefit from television. He pointed to Rep. William H. Bates, 37-year-old Massachusetts Republican.

Bates, he said, in presenting an argument "even if all illogical to an extreme . . . in his way and with his looks" might be able to put it over on television.

a dollar for job protection



BY JAMES L. McDEVITT, Director of Labor's League for Political Education

LABOR'S LEAGUE FOR POLITICAL EDUCATION again will conduct a fund-raising drive in a year when there will be no Congressional elections—this year of 1955—and for a very compelling reason:

There must be a “backlog” of money with which to help elect candidates in Southern states who have a liberal point of view. The big elections in the South are not the general elections in November; they are the Democratic primaries which are held in the spring. Primary winners are assured of election in almost every single district in Dixie.

Thus, in order to boost the chances of Southern liberals, such as Senators Lister Hill (Ala.) and Olin Johnston (S. C.), *next* year—when Congressional elections will be held—it is vital that working people contribute voluntarily to Labor's League, this year, well before the primaries.

In short, if AFL members wait until 1956 to contribute their dollars, it will be too late to help pro-labor candidates in the South conduct their campaigns that will begin shortly after New Year's.

Last year, following the 1953 voluntary contribution drive, trade unionists gained 28 pro-labor members in the House and four in the Senate.

Thus, as between the elections of 1950 and 1954, there was a net difference of 54 pro-labor Representatives and nine Senators.

The \$1 which each AFL member is asked to give to political educational activities starting this spring, is just as much an investment in your job protection as is the per capita dues you pay to your union.

It is protection against changing the Taft-Hartley Act to allow states to outlaw the right to strike and to picket, as proposed only last year by Senator Barry Goldwater (R., Ariz.).

The Goldwater amendment followed the exact wording of the National Association of Manufacturers. The NAM

proposal would change the Taft-Hartley law to read “that nothing in the Labor-Management Relations Act (T-H) shall be construed to nullify the power of any state to regulate strikes and picketing within its borders.”

A switch last year of only five votes in the Senate would have permitted the Goldwater amendment to be voted on.

There is not a union security contract in America today that cannot be wiped off the books by legislative action. So the dollar you give to Labor's League for Political Education to help candidates who believe in fair labor-management legislation protects your pay check.

Certainly the price of four or five packs of cigarettes per year is not too much to pay for job protection.

The independent *St. Louis Post-Dispatch* estimates that the immensely rich Texas oil man, H. R. Cullen, spent \$750,000 in the 1952 campaign. And he spent it on reactionary candidates in half the states of the nation.

That figure contrasts with the total of \$734,000 which LLPE spent in *both* 1952 and 1954.

When one man can spend more money in *one* year to elect reactionaries than an organization representing 11 million men and women can spend in *two* to elect liberals, some measure of the task of trade unions and other public-spirited groups in fighting reaction can be gauged.

Three other oil families—the Rockefellers, Mellons and Pews—tossed in \$223,000 during the 1954 political campaign. You can be sure that money didn't go to liberals.

So when your job or shop steward sees you this spring about contributing \$1 to Labor's League, remember:

Your contribution is needed—and needed now—to help favorable candidates get elected so they can help you.



LOCAL UNION 1287, Tulsa, Okla., is picketing KTVX in Muskogee for recognition. KTVX(TV) is owned by the Tulsa Broadcasting Company, which also operates KTUL in Tulsa. Management has refused to recognize the local union and its claim to jurisdiction over the work in the station, a Channel 8, ABC affiliate. On the picket line, above, are Ralph Erwin, financial secretary of Local 1287, and John Ferguson.

Employer Must Reveal All Wage Rates Paid

Upon request, an employer must furnish the union representing his employees a list showing the name and wage rate for each member, the U. S. Court of Appeals, Fourth Circuit, has ruled.

Denial of such a request is an unlawful refusal to bargain, it was ruled in *NLRB v. Whitten Machine Works*, a recent case.

The employer furnished the union a list containing the names of all employees, their individual job categories and the dates on which they were hired. It also furnished a list of the hourly wage rates and a schedule of the existing rate ranges paid at the plant, together with the number of employees within each rate range. The union wanted, and was refused, a correlated list showing the rate earned by each individual.

The argument that the union had as much information as it needed was rejected by the NLRB, which held that the law entitled the union to "all wage information

essential to the intelligent representation of the employees and that when such information is reasonably available only from the employer's records, it is the employer's duty, on respect, to accommodate the union." (108 NLRB, No. 223.)

The Fourth Circuit Court cited the Board's opinion with approval. To support the conclusion, cases in the First, Second, Sixth and Seventh Circuits were cited.

Wisconsin Local Busy In Education, Politics

A legislative committee has been appointed by IBEW Local 715, Milwaukee, Wis., to keep the membership informed on political matters and to be available when necessary to travel to the state capital to support labor's efforts before the state legislature.

The committee was appointed at a recent meeting of the local, as a result of a request for political assistance from the State Federation of Labor, Jim Wilkerson, press secretary of Local 715, has reported. Bob Perthel, of WCAN, is chairman; Ed Kurylo, of WTMJ, is secretary, and the third member is George Munn, of WMIL.

In announcing the committee appointments, Press Secretary Wilkerson commented: "Most members are undoubtedly aware that the AFL has plunged headlong into politics to follow the earlier action of the CIO. When you look around and see such things as the so-called "right to work" laws being enacted in an ever-increasing number of states, this step by the AFL is fully understandable. We have been continually urged to participate in supporting the work of such groups as Labor's League for Political Education, urged by our own International Union, by Wisconsin State Federation of Labor, by the Milwaukee Federated Trades Council, and by others. . . . The feeling seems to be that this is an obligation which we, as a member of the labor movement, can no longer ignore."

Local 715 is busy, meanwhile, in still another field. The second term of a television training course sponsored by the local is underway. The course has an enrollment of 85, and the financial success of the venture is assured, states Brother Charles H. Kaetel, chairman of the local's educational committee. The instructor is a Dr. Jacobs, and the text for the course is Fink's *Television Engineering, Second Edition*. The local is now considering establishing a similar TV training course in Madison.

To provide members of the local in Madison with a better opportunity to become acquainted with union activities, Local 715 began holding quarterly meetings in that city in February, a year ago. Subsequent meetings were held in June, September, and December. Meeting times alternate between 10 a. m. and 8 p. m. to afford everyone an opportunity to attend some of the meetings.

Reading Time

Decisions and Orders of the National Labor Relations Board, Volume 106, covering the period July 1, 1953, to November 3, 1953. Order from Superintendent of Documents, Government Printing Office, Washington 25, D. C. 1,403 pages. \$4.75.

The Government Printing Office, a Federal agency faced constantly with a fabulous stack of unfinished publication work, has just begun the distribution of Volume 106 of the NLRB rulings and orders. This volume is significant for organized labor in that it covers decisions during a transitional period in the Board's thinking . . . when the opinions established under the Democratic Administration of President Truman were being changed by new Republican membership on the Board.

Transistors: Theory and Application by Abraham Coblentz and Harry L. Owens. McGraw-Hill Book Co., New York City. 313 pp. \$6.

Here's a volume written for technicians and engineers giving a pretty good overall picture of the versatile transistors. The principle of transistor operation, the way transistors are made and their uses in electronic circuits are described.

Each chapter is accompanied by a reference list for those who wish to do further reading.

Cheyenne Mountain Tropospheric Propagation Experiments, by A. P. Barsis, J. W. Herbstreit, and K. O. Hornberg, National Bureau of Standards Circular 554, 39 pages, 46 figures, 3 tables. Government Printing Office, Washington 25, D. C., 30 cents.

This circular describes the National Bureau of Standards Central Radio Propagation Laboratory's facilities atop Cheyenne Mountain, Colo., and gives some sample results of the tropospheric propagation research carried out using the facilities.

The mountain site was established for use in studies of tropospheric radio-wave propagation in the vhf and uhf region of the radio spectrum. These facilities include high-power continuous-wave transmitters on five frequencies, from 92 to 1046 Mc. Continuously recording field-strength receivers are located at four fixed receiving locations ranging to 226 miles from Cheyenne Mountain, with provisions for semifixed recordings at Anthony, Kans., and Fayetteville, Ark., 393 and 617 miles, respectively, from the transmitter site.

An Unfinished Job

By BERNARD M. BARUCH

The forces of organized bigotry are being routed in America. Steadily and surely, in education, employment, housing and in all human relations, discrimination is waning. Much remains to be done, to be sure, and Brotherhood Week, February 20-27, is a reminder to us that the task is still incomplete.

To discriminate against a man because of race, color, creed or national origin is antithetical to democracy and dangerous to America. In this time of democracy's testing, we must proclaim our faith in it and live closely by its principles. In these days of danger to America we can permit nothing to undermine the unity which is so essential to our safety. Nothing is so destructive of unity than the hate, discord, suspicion and bitterness which prejudice breeds.

There can be no second class citizens in America. As we expect each man, black and white, Jew and Christian, native and foreign born to bear the responsibilities of citizenship, so we demand that each share in its rights and privileges and we seek that all shall live in mutual respect, understanding and friendship.

The time will come, and soon I hope, when Brotherhood Week will be a reminder, not of the presence of discrimination in our midst, but of its eradication. Until that time, we must, each of us, work to break down its barriers, fight bigotry wherever we find it and cleanse our own hearts of blind animosity against our fellows.



This is published in the interest of Brotherhood Week, February 20-27, sponsored by the National Conference of Christians and Jews.

An extensive radio meteorological installation is located at Haswell, Colo., where accurate measurements of temperature, pressure, and humidity are made with electronic measuring devices. Refractive-index turbulence is measured with the microwave refractometer developed at the Bureau.

In the circular the new theory of tropospheric propagation embodying the Brooker-Gordon scattering principles is related to the measurements.



Plug-ins Obsolete?

A tubeless radio receiver, slated to sell for \$79.95, doing away with conventional vacuum tubes and incorporating eight transistors instead, is the latest product to be marketed by Raytheon Manufacturing Company.

Introducing the new portable model, which is designed to operate a full year from the power derived from four conventional one-cell flashlight batteries, Henry F. Argento, Vice President and General Manager of Raytheon's TV-radio operations, predicted that plug-in receivers may be obsolete in five years.

Raytheon reportedly spent over five million dollars and five years in research perfecting the new receiver which is now in production.

Other characteristics of the new unit:

It is capable of operating for two and one half years on a single set of mercuric oxide batteries.

With normal care, the transistors need never be replaced.

It will operate for one year at a cost of about 60 cents, as compared to \$15-\$35 for an ordinary plug-in battery-operated radio with vacuum tubes.

A company official said the new radio, compared with conventional sets, offers "equivalent sensitivity and greater undistorted volume."

CBS-Columbia Expands

CBS-Columbia, Inc., has moved into the field of industrial TV, according to an announcement by Seymour Mintz, president of the radio-TV Receiver Manufacturing Division of CBS.

The company will begin manufacture of closed-circuit industrial color TV as part of its program of expansion and diversification in the electronics field, Mintz says.

New RCA Transmitter

The first week of 1955 witnessed the unveiling of a new type 50 kw AM broadcast transmitter by RCA.

According to the company, the new transmitter repre-

sents the "most significant advance in transmitter design in nearly two decades." In announcing the unit, Theodore A. Smith, vice president general manager of the RCA Engineering Products Division, said he expects the new "Ampliphase" transmitter, to be made available to broadcasters later in the year, to have "as revolutionizing an effect upon American broadcasting as did the high-level modulation circuit for maximum power transmitters introduced by RCA some 17 years ago."

RCA spokesmen say that no definite plans have yet been made to apply the new principle of the "Ampliphase" high-power transmitter to lower-power radio transmitters, but that "certainly there are possibilities for the future."

New GE Antennas

A new line of 13 high-power batwing vhf antennas for use by low and high channel stations has been announced by General Electric Company.

According to Paul L. Chamberlain, GE General Manager of Broadcast Equipment, the new antenna line—type 50, 60 and 70—uses $\frac{7}{8}$ -inch styroflex feed lines, improved junction boxes and new techniques in cable grounding for high power capability and reliability. A built-in greater safety factor is designed to reduce maintenance costs. Another improvement is a better voltage standing wave ratio. The antennas also use a standard type steel mast which is designed to withstand 50 pounds per square foot of wind pressure—equivalent to an actual wind velocity of 112 miles per hour.

Vertical Chassis

Zenith recently showed its distributors a "dramatic new concept in TV styling that takes table model and portable television out of the packing case with knobs classification," when it represented its 1955 line of products.

"Development and use of a special, space-saving vertical chassis together with a shorter 90° picture tube," H. C. Bonfig, Zenith vice president, stated, "has allowed us to build a completely new and revolutionary series of small sets."

"The receivers feature imaginative cabinetry design, an entirely new 'jet-tuning' system, and two-toned or monochrome housings that will harmonize with practically every home decorative scheme."

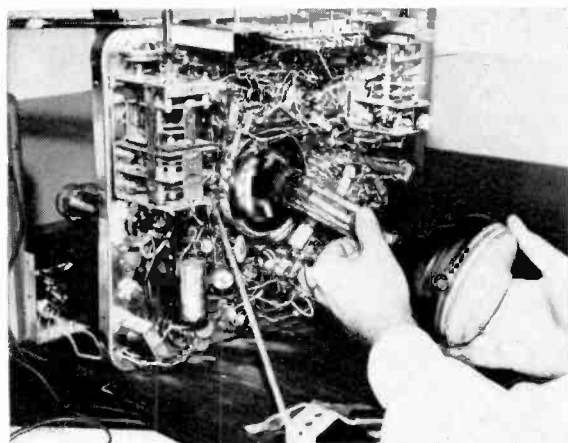
He stated that the new series includes the lightest 17-inch receivers produced by any major TV manufacturer. "Using convenient hand-grips on the side of the set," he said, "any of these instruments can be picked up and carried off to another room—or even plugged in at an outside viewing location, wherever family preference dictates."

Twelve receivers use the new vertical chassis and a handswitch type cascade tuner. Horizontal chassis sets use the Zenith turret tuner with 12 vhf channel strips. Any of these vhf strips may be replaced at slight extra cost in the field by a uhf strip for uhf reception on a designated channel.

TV Check Tube

Sylvania Electric Products, Inc., has announced a new television receiver check tube, designated the 5AXP4, a 5-inch, round, magnetically deflected tube using electrostatic self-focusing.

The new check tube, intended primarily for the television servicemen and for TV equipment manufacturers, will now permit a cabinet-mounted picture tube to be left in the cabinet while the receiver is being serviced in the shop. It is also a universal type of tube which can be inserted into any TV chassis while the set is being serviced.



THE NEW TELEVISION receiver check tube developed by Sylvania being installed in a receiver. Designated the 5AXP4, it is magnetically deflected, electrostatic self-focusing.

Since the tube has a focus system built into it, no focus mechanism needs to be used on the tube nor does the ion trap need to be installed while making tests on the receiver. The tube is so light that the yoke of the receiver will very easily support the tube. Only electrical connections required are the high-voltage lead and the pic-

ture tube socket of the receiver. The tube may be used in any receiver regardless of the deflection angle.

DuMont Eyes Radio

Allen B. DuMont Laboratories has announced that the firm is "experimenting with the idea" of entering the general production of radio receivers.

Up to the present time, DuMont has concentrated solely on television production, except for the manufacture of console-type radio receiver units. These latter receivers are offered as an optional extra in three models of DuMont's new "Wide Horizon" TV receivers.

DuMont's Receiver Division has just disclosed details of the company's "radio optional," which it describes as "an outstanding technical development in radio engineering."

The new unit weighs about three pounds and has a chassis slightly larger than a man's hand, but with the common use of the TV speaker, "gives the performance of a large console radio." It contains five tubes, has a built-in loop antenna and can be installed in the TV receiver without changing the location of any of the TV parts. It employs ten resistors, 21 capacitors and one of its circuits is manufactured with the new printed technique.

Gates Turntable

A new three-speed turntable which controls all three speeds, plus motor starting with a single flip-type lever, has been announced by the Gates Radio Company of Quincy, Ill.

Features of the new unit include increased torque, developed through a heavy duty synchronous motor which operates a drive arrangement so that timing is accurate and slippage is claimed to be practically eliminated.

Better B-and-W Color

A new method of colorcasting has been developed by GE which is said to assure sharper monochrome pictures on home black-and-white receivers.

In the GE method, fuzziness of monochrome images caused by faulty registration when red, blue and green pictures are superimposed on black-and-white picture, is eliminated by picking up monochrome and color signals independently, then mixing them for transmission as single signal. This permits home monochrome sets to receive only black-and-white part of signal while home color set receives both parts. Both pictures are sharper, because color is added to black-and-white picture, rather than the black-and-white picture being formed by three color pictures.

Station Breaks



School TV Grows

Within a year some 35 to 40 million people will be within the range of educational television service.

Such is the prediction of Dr. David D. Henry, Executive Vice Chancellor of New York University. Dr. Henry, chairman of the Joint Committee on Educational Television, a national organization composed of delegates from seven educational associations, told a dinner meeting of the College Section of the National Council of Teachers of English that educational TV is presently experiencing "a phenomenal growth, similar to the recent expansion of commercial television." He pointed out that 12 million persons live in the ten metropolitan areas where educational TV stations now are operating. He continued by saying that an additional nine million persons live in areas where nine new stations are being erected, plus some 13 to 18 million in areas where 13 new stations soon will be built.

Oregon Coverage

RADIO-TV newsmen covering the Oregon Legislature now enjoy full equality with newspapermen, following adoption of new rules petitioned for by the Oregon State Broadcasters Assn., asking that broadcasters have access to the floor and committee rooms of both Oregon houses.

Under the new rules, both live and tape broadcasts of committee hearings will be permitted, with the chairman's approval.

Additionally, a special radio press room has been established in the Senate Gallery for exclusive use of accredited radio-tv reporters at OSBA request.

During the current session, a Senate bill was introduced requiring that all state administrative agencies open their meetings to the public, and that radio and TV stations and the press be notified at least five days prior to scheduled hearings.

The Supreme Test

ATOMIC Energy Commission is issuing invitations to media to observe civil defense exercises during spring series of test explosions in Nevada. Tests started in mid-February, with "open-shot" tentatively set for mid-April. Industries of all types to participate in open-shot tests, with 30 electronic manufacturers supplying equipment through Radio-Electronics-Television Manufacturers Assn. Apparatus will be placed around "see-the-blast"

area to determine how it holds up under shock, heat and radiation.

FCC Order Dismissed

THE SHOW CAUSE order issued by FCC in late 1953 to require CBS to divest part of its AM station holdings was formally dismissed by the Commission this month upon recognition that the network now owned only six radio outlets, one less than the seven station maximum prescribed in the revised multiple ownership rules.

Noting CBS has sold its minority holdings in KQV Pittsburgh, WTOP Washington and WCCO Minneapolis, the FCC order found the show cause proceeding to be moot. CBS owns WCBS New York, WEEL Boston, WBBM Chicago, KMOX St. Louis, KNX Los Angeles and KCBS San Francisco.

Meanwhile, Westinghouse Broadcasting Co. petitioned FCC to permit Dillon Anderson, one of 20 directors of parent Westinghouse Electric Corp., to retain his 2.8 per cent interest in KTRK-TV Houston on the ground it is inconsequential and not within the intent of the Commission's multiple ownership rules. The petition, revealing history of the rule and noting two other Westinghouse Electric directors already have given up their personal broadcast interests to comply with FCC's multiple ownership inquiry, suggested 5 per cent interest would be a more equitable limit than the 1 per cent now in the rule.

January Jobless

A total of 3,347,000 persons were looking for work in January but couldn't locate a job.

That's the upshot of the Government's latest report on unemployment showing a rise of about 500,000 jobless and a drop of 500,000 in total employment.

The latest spurt in unemployment came on the heels of a prediction by the AFL Executive Council that unemployment would reach 3½ to 4 million in February and March and may go higher unless consumer spending is sharply increased by Government and business policies.

The report issued by the Labor and Commerce Departments showed unemployment rising from 2,838,000 in December, 1954, to 3,347,000 in January.

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Technician-Engineer