



PRESENTS

THE 1947  
YEAR BOOK  
OF  
TELEVISION

*Edited by*  
JACK ALICOATE

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# Du Mont has built more Television Stations than any other company

From the world's largest, clearest direct-view television receivers to the world's largest and most complete television broadcasting studios, Du Mont is "First with the Finest in Television."

The technical superiority and prestige-winning performance of Du Mont Television broadcasting equipment has been demonstrated in more installations than any other company can boast. And Du Mont's "unit construction" assures expansion as desired without obsolescence or replacement loss. Engineers are agreed that Du Mont broadcasting equipment is "tops" in flexibility and dependability, but not all engineers or prospective station owners know that it is surprisingly low in cost. We want to tell you more. We want to show you Du Mont broadcasting equipment in use. No obligation. Write or telephone for literature, or appointment, *today*.



**DU MONT**

*First with the Finest in* **TELEVISION**



# TELEVISION

In the pages that follow Radio Daily presents the second edition of the Year Book of Television. . . . A look into the past. . . . A survey of the present. . . . A preview of things to come.



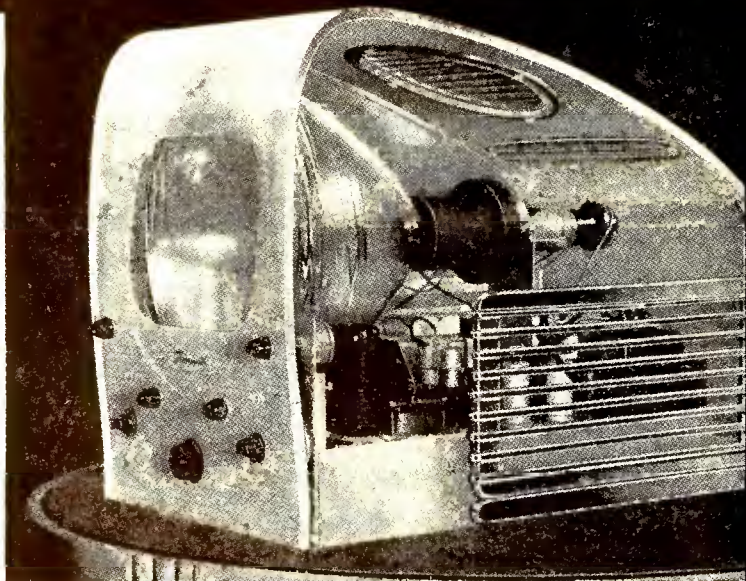
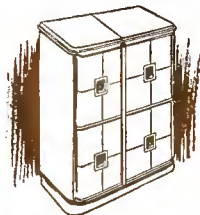
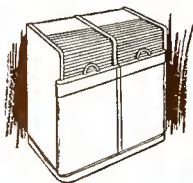
Television, has definitely arrived. . . . Its present drawback is distribution. . . . Once the bottleneck of set production is broken nothing can stop its march of progress.



To the many from all branches of this great new medium, soon to take its place alongside the stage, screen and radio, who have contributed to the pages that follow we are deeply grateful.

*JACK ALICOATE*  
*Editor*

# Seeing is Believing..



Inside and out, Farnsworth quality is evident. When you see today's television on a Farnsworth—you see it at its best.

Television is no longer in rehearsal. It is here, now! And when you see the clear, bright, highly defined pictures of modern day television as received on one of Farnsworth's table or console models, you know that today's television is *outstanding*.

For two decades Farnsworth has pioneered in advancing television from a promise to a fact. The technical accomplishments of Farnsworth engineers—from the original development of the electronic television system to practical television as we know it today—have made history.

Superb modern designs characterize Farnsworth's current line of television receivers that, in addition to television sight and sound reception, include standard radio and/or frequency modulation. Some models also combine the deluxe Farnsworth record changer for complete television, radio and phonograph service in one instrument.

These instruments offer the same superior performance that has become synonymous with the Farnsworth name in every branch of its electronics activity. Farnsworth Television & Radio Corporation, Fort Wayne 1, Indiana.

# Farnsworth

TELEVISION  
RADIO  
PHONOGRAPH-RADIO

# TELE IS HERE — OUTLOOK BRIGHT

By FRANK BURKE, Editor RADIO DAILY—TELEVISION DAILY

**T**ELEVISION arrived the past year with well defined black and white pictures, increased production of receivers and equipment and experimental progress in the development of color.

Many significant things occurred reflecting the progress of video. One was the successful establishment of a coaxial cable network linking Washington, Philadelphia, Baltimore, with New York stations. Another was the pronounced improvement in programming, especially special events coverage, and the growing number of major advertising agencies who have come to recognize the potentialities of the new art.

The lag in receiver production due to lack of component parts, labor strikes, and the black and white-color controversy probably did most to retard full stride development of television. However despite the delays the nation's television audience increased from around 10,000 to more than 20,000 receivers and the forecast is that 100,000 receivers will come off the lines of the major manufacturers during 1947.

## Receivers on Market

Tele receivers placed on the market the past year ranged from small portables priced at around \$250 to massive all-purpose console models which were priced at \$2,500. The table models in some instances were not entirely satisfactory until RCA came along with a precision built instrument that is giving satisfaction. Du Mont led the field of custom sets with elaborate direct image console models which included AM, FM, shortwave and a record changer. While Du Mont's line was produced in only limited quantities they found ready sale.

## Other Manufacturers Ready

As we enter 1947 other manufacturers will make a bid for the television receiver business. These include Philco, Farnsworth, General Electric, Crosley and Stromberg-Carlson. Experimental models were produced and tested during 1946 and production lines were made ready with the beginning of the new year.

While manufacturers are cognizant of the necessity of building an audience through the production of new receivers they are also mindful of the immediate needs of television transmitters in fur-

thering the development of the new art. During the coming year approximately 50 transmitters are scheduled for delivery. These include station equipment for such cities as Baltimore, Washington, Cleveland, Pittsburgh, St. Louis, San Francisco, Minneapolis, Detroit, Chicago and Buffalo. Stations in Detroit, Chicago, Washington and St. Louis expect to be on the air before summer.

## Programming Progress

Stations in New York, Chicago, Philadelphia, Schenectady, and Los Angeles led the way in program development the past year. New ideas and techniques for presenting live talent shows and films and the strides made in the coverage of sporting events highlighted the progress made. Noteworthy among these accomplishments was the network coverage of the Louis-Conn fight, pickup of major league baseball games in New York, and the Washington remotes on President Truman's appearance before a joint session of the House and Senate. The direct pickups from United Nations headquarters and the special tele films of the Bikini atom bomb tests were also among the special events classics.

While the controversy over the merits of black and white television as compared to sequential color scanning continued through 1946, public acceptance of the monochrome pictures was apparent. Black and white pictures of fine definition were provided through improved transmission and the use of the new Image Orthicon cameras. Then, too, the tuning refinements, brighter pictures and improved antennas contributed to the eye appeal of the pictures.

## B. and W. vs. Color

The color tele fight brought demonstrations of CBS' improved system of mechanical scanning and RCA's experimental electronic color. It was contention of Dr. Peter Goldmark, CBS color expert, and his associates that color was ready for immediate commercial development. RCA, Du Mont and officials of Television Broadcasters Association, on the other hand, stressed the acceptability of black and white and indicated that perfected electronic color was some years off. The merits of black and white vs. color was still a hot potato in the hands of the FCC when this article was written.

# PHILCO

## TELEVISION STATION

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in Philadelphia*

**T**O THE TELEVISION ADVERTISER, every facility for commercial television programs is offered by Philco Television station WPTZ . . . a fully equipped studio and trained staff of television technicians, set designers and producers for live programs; a complete motion picture projection studio; new image orthicon equipment for remote pick-up of events outside the studio; radio relay station at Mt. Rose, N. J., for relaying programs originating in New York to the Philadelphia audience.

**PHILCO TELEVISION BROADCASTING CORPORATION  
ARCHITECTS BLDG., PHILADELPHIA 7, PA.**

# Tele Tempo Today— Facts and Figures

**N**INE television stations are operating, 46 grants have been made and 19 applications are pending, according to FCC figures of January 1, 1947.

Prices of television receivers in 1946 ranged from \$250 for small table models to \$2,500 for console model all-purpose receivers. Installation charges varied upward from \$30 to \$50.

TBA officials estimate that 24,000 television receivers are now in use throughout the country as compared to 10,000 a year ago. Approximately 10,000 of the sets in use are in the Greater New York area.

The coaxial cable linking Washington, Philadelphia, New York and Schenectady was inaugurated on Feb. 12.

DuMont's television studio in the John Wanamaker department store in New York opened officially on April 15.

Television set manufacturers indicated that in 1946, 44,706 sets would be equipped for television on 13 channels; 54,606 would be equipped for 13 tele channels plus AM and FM bands; 10,000 sets would be equipped for 6 tele channels and AM reception; 500 sets for 13 channels and AM; 4,000 sets for six tele channels, and 500 sets for 13 tele channels plus FM.

Charles R. Denny, FCC Chairman predicted that by the end of 1947 100 television stations would be on the air.

Coverage of the Peace Conference in Paris was given via the medium of television. Films were taken and airmailed back to the states for airing by television stations.

An average of five viewers in New York and a little over that in Philadelphia is the figure given for those watching various commercial television programs according to a survey by ABC.

Broadcast of the Louis-Conn fight via television enjoyed the largest television audience in the history of this new industry.

Opening of the UN Security Council was televised, showing President Truman in his welcome address

# In every field of radio

## LOOK TO THE GENERAL ELECTRIC COMPANY



**AM** Among the first to design, build and operate transmitters in the AM field, General Electric has always maintained its interest in advancing the art and technical

development of this phase of broadcasting. The 250 watt AM transmitter shown here is the first of General Electric's completely new line that includes all types, from the lowest to the highest power ratings.



**FM** As a pioneer in the development of FM broadcasting, General Electric has acquired the background and experience which has proved so invaluable to the

newer stations entering this field. As a leader in the development of FM, General Electric has a complete line of FM transmitters for broadcasting stations of every size.

## COMMUNICATIONS



In the broad field of communications, General Electric has placed emphasis on the importance of quality, reliability and simplicity of design in this type of equipment. Since many of the applications for radio communications equipment are in the nature of public services, extreme care has been exercised to design each unit for maximum utility. Complete systems for the bands available to these services are provided, both station and mobile.

FOR COMPLETE INFORMATION ON GENERAL ELECTRIC RADIO EQUIPMENT, WRITE OR CALL ANY OF THESE DISTRICT OFFICES:

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Merchandise Mart

**CLEVELAND 4, OHIO**  
4966 Woodland Avenue  
**DALLAS 2, TEX.**  
1801 North Lomor Street  
**KANSAS CITY 6, MO.**  
106 West 14th Street

**NEW YORK 22, N. Y.**  
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FIRST AND GREATEST NAME IN ELECTRONICS

**GENERAL  ELECTRIC**



**AVIATION** To the pilot, the radio equipment is the most valuable instrument

in his plane, since his life may depend upon it. In designing the complete General Electric line of Aviation Electronic Equipment, reliability far beyond accepted standards was demanded. The high quality that is being built into these entire lines is assurance of dependability under the most critical conditions.



**TELEVISION** For years General Electric has pioneered in television. Station WRGB has provided outstanding facilities for both technical and program experimentation.

This union of engineering with studio production supplies General Electric with experience of incomparable value to those entering the television field.



## MARINE RADIO

During the war General Electric was one of the largest producers of radar for the Armed Forces. Many of these developments have been refined and simplified for use in peace. The Electronic Navigator, a radar development, is one of these peacetime applications which is now being used in navigation to protect shipping. Other equipment now being developed will aid in saving untold millions of tonnage and numbers of lives in the future.



# ALL-ELECTRONIC COLOR TELE

By E. W. ENGSTROM, V. P. In Charge Of Research, RCA Lab. Div.



E. W. ENGSTROM

COLOR television pictures, produced by all-electronic means, were demonstrated publicly for the first time on October 30, 1946, at the RCA Laboratories, Princeton, N. J. Groups of newspaper and magazine writers, and representatives of the radio industry, who attended the demonstration, saw that

flickerless, all-electronic color television is practical without rotating discs or other moving parts.

The new system is a complete departure from mechanical color television, shown in various forms since 1925. With the demonstration, it was emphasized that approximately four years would be required to bring any color system to the present status of black-and-white television.

Many interesting features are embodied in both the transmitting and receiving apparatus. Fundamentally, the RCA system transmits images in the three basic colors—red, blue and green—simultaneously. In other words, all colors comprising a scene are transmitted together and produced together. Existing mechanical color television systems transmit the three colors in sequence, one color at a time, relying on the persistence of the eye to combine them properly.

To accomplish the simultaneous transmission of three colors, RCA scientists and engineers developed a special camera for the pick-up and a multiple cathode-ray projection system for the receiver. The equipment, as demonstrated, effectively transmitted color "stills" and motion picture films. There are under construction color television cameras for studio and outdoor pickup of live subjects.

Transmission of the picture on slide or film is achieved in natural colors when a light beam from a kinescope scanning raster is focused onto the transparency and the light passing through is separated into component colors by a system of

color selective mirrors and converted into electric signals in multiplier-type photo-electric cells.

Each of the three transmitted images—red, blue and green—is arranged to have the same number of lines, that is 525; also each one has the same horizontal scanning rate and the same picture repetition rate of 30 pictures a second as in present commercial television broadcasting.

The receiving set is equipped with three 3-inch kinescopes, which separately receive the signals representing red, blue and green and produce television images in these colors. This trio of kinescopes is called Trinoscope. From it, the three color images are optically projected to form a brilliant composite picture on a 15 x 20-inch screen in natural color, free from any flicker, color fringes or break-up of color.

Since the standards for the green image—including the synchronizing pulses—are identical to those of the present black-and-white standards, any broadcasts from color stations using the electronic simultaneous system can be received clearly in monochrome on black-and-white receivers by the addition of an inexpensive, easily installed radio-frequency converter. No modifications whatever are required inside the set.

Likewise, it will be possible for electronic color television sets when introduced to receive the broadcasts of black-and-white stations.

A station owner can begin with a black-and-white broadcast service. He may operate a black-and-white transmitter on the presently commercialized channels and also an electronic color transmitter on ultra-high frequencies, using the signal of the color camera to operate both transmitters.

Engineers, scientists and commercial personnel have been greatly concerned by the prospect that when color television was developed it would quickly make the existing black-and-white system obsolete. The simultaneous color system happily solves this problem of obsolescence and at the same time is a superior color television system.



# CHARLES STARK

INCORPORATED

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**"CASH AND CARRY" (with DENNIS JAMES) IS A VIDEO SMASH!**

**"TELE" US YOUR NEEDS . . . WE'LL SOLVE THEM!**

**366 MADISON AVENUE**

NEW YORK 17, N. Y.

MURRAY HILL 2-2636



# COMMERCIAL TELE PROGRAMMING

By DON McCLURE, N. W. Ayer & Son, Inc.



Don McClure

IT WOULD seem reasonable to assume that when the term "Commercial Television Programming" is used, the reference is to the type of show the viewing audience will demand as a regular bill - of - fare, or else. If television is to take its rightful place as a great advertising

medium along with its predecessors, newspapers, magazines, billboards, direct mail, carcards, and radio, it will have to have a commercial sponsor to be an economic success.

This is in no way a reflection upon the many excellent sustaining radio and television programs. Unfortunately, star talent costs money. Continued use of top talent, the makings of a good show, can only be had for free when a sponsor pays the bills. And, a good show is the only thing that is going to keep Mr. and Mrs. John Q home to tune in and view with enough regularity to make television a real "Huckster's" paradise.

To date the good shows have been few and far apart. An Army-Notre Dame, nothing-to-nothing tie comes once in a schedule. Play-offs in baseball for "dem Bums" has never before occurred in baseball. Unfortunately champion Joe Louis can only K.O. Mr. Conn once in a contest. Most of the other good shows have happened by accident and usually because it was accidental, few have taken the time, trouble, or used enough ingenuity to discover the various elements that went into making it a hit show.

This hit-and-miss procedure has too long been tolerated by a small, long-suffering group of pioneering "squinters" on over-tired, pre-war, pre-radar television sets. Fortunately, their day of freedom is at hand. The number of super-duper post-war sets are doubling daily. The new sets include all the latest electronic improvements. Cabinets are streamlined; the number of knobs and dials have been reduced; even the price is less than that of their predecessors. All that is left is to give this growing group of hopefuls a good show.

The latest surveys indicate it is safe to say a good football contest is a natural for television. Your seat is in the middle of each play. On a pass, your views sails into the receiver's arms. On an end around, you, the invisible blocker, clear the way for the future all-American ball carrier. Point after touchdown lifts you over the crossbars as gracefully as the dansant of the Ballet Russe.

World championship bouts come too few and too far apart. But when they do occur, there' not a hundred dollar reservation in the arena that can give you half the view or comfort of your television ringside seat.

Other sporting events will undoubtedly take their rightful, pictorial place after reasonable experimental coverage.

Needless to say, all sporting events offer ideal commercial opportunities. The outcome of the contest is usually in doubt until the final gun. Athletic games are spontaneous, thereby requiring continuous viewing. Commercial messages, properly inserted and of an acceptable length, will reach and impress the largest possible audience.

Other types of good shows are bound to be developed. Audience participation seems to be on the bill of fare. Because of the spontaneity and final outcome, the viewers' interest is at a peak throughout the show. What more can an advertiser ask?

The audience will be there if the entertainment is good, so all that remains is ways to trick the viewer into looking and listening to your advertising message. Integrated commercials will come into their own. The minute movie technique will be widely used. Minute movies, a firmly established and successful advertising medium, has many things in common with television commercials. Good one-minute shorts appearing on the screens of thousands of theaters in the nation have proven themselves capable of increasing sales by almost unbelievable percentages. There is every reason to expect that the same general technique, modified for television use, can develop perhaps an even greater record of success.

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Offering a Wealth of Unique and Valuable Material and  
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**DOCUMENTARY and EDUCATIONAL SUBJECTS**



**OVER 10,000,000 FEET OF STOCK SHOTS**

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ALL FILMS CAN BE CUT TO MEET YOUR REQUIRED SHOWING TIME

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**SHIPPING SERVICE—REHEARSAL ROOMS**

COMPLETE PROGRAM DEPT.

*A Production Department Producing Pictures for  
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- - -

NEW YORK CITY

# PROGRESS OF CBS COLOR TELE

By PETER C. GOLDMARK, Dir., CBS Engineering & Development Dept.

ON SEPTEMBER

27, 1948 the Columbia Broadcasting System petitioned the Federal Communications Commission to adopt recommended standards for the commercial broadcasting of color television in the ultra-high frequencies. Although CBS ultra-high frequency color television had already been demon-



Peter C. Goldmark

strated during the latter months of 1945, many of the developments that led to its application for acceptance as a public broadcasting service came about during 1946. Here is an abbreviated chronology of developments since the beginning of the year.

January 31 saw the first of a series of semi-public demonstrations of ultra-high frequency color broadcasting. These demonstrations marked the first use of an ultra-high frequency transmitter of commercial design, one built expressly for CBS by the Federal Telephone and Radio Corporation.

The pictures represented a marked improvement over the results we had been able to obtain in the low frequencies before the war. Then, the definition had been limited to a figure well below 400 lines. The color images we had now were scanned in 525 lines, interlaced 2 to 1. And the occasional difficulties we had encountered in the rendition of certain colors, notably the darker shades, were eliminated entirely.

Besides proving the existence and appeal of color television to an increasingly large number of people, the demonstrations established these technical facts:

(1) It was possible to modulate a 10-megacycle video band.

(2) It was possible to broadcast a signal of commercial strength in the ultra-high frequencies.

(3) "Ghosts" could be eliminated in ultra-high frequency broadcasting.

Later in the spring it was shown that

the present coaxial cable could successfully transmit an ultra-high frequency color television program.

This important demonstration was conducted in cooperation with engineers of the Bell Telephone laboratories. A program was picked up by ultra-high frequency color equipment here in New York City, sent by coaxial cable to Washington and back, and broadcast from the Chrysler Tower. The overall distance was over 450 miles, a record for any kind of television transmission by coaxial cable. The cable itself had been in no way modified for the test. In the pictures that finally reached the receiver screen the loss of apparent definition was negligible, establishing the fact that the coaxial cable offered no serious obstacle to the progress of ultra-high frequency color television broadcasting.

Among other things it was established that color television images can be seen clearly and without strain under normal ambient illumination—in other words, "you don't have to pull the shade down to look at color television."

Another phase of the progress of ultra-high frequency color television was represented by the following field intensity surveys:

- (1) On 700 megacycles, in cooperation with the Commission, a survey of seven months' duration (covering seasonal variations in tropospheric transmission) to determine medium and long distance propagation characteristics in the ultra-high frequency television band.
- (2) An extensive field survey of six months' duration to determine the coverage of television station W2XCS in New York operating on a carrier frequency of 490 megacycles. This survey included observation of reception at 188 locations scattered throughout the New York metropolitan area as well as extensive field intensity measurements. Numerous subsidiary problems involved in the propagation and reception of ultra-high frequency television signals were also investigated.

# ***Television Awards For 1946***

## ***American Television Society***

### **AWARDS FOR 1946**

To ABC and Du Mont station WABD for their contribution to commercial television. Paul Mowrey of ABC specially cited.

WCBW (CBS) and WNBT (NBC) received joint awards for technical excellence; James McNaughton, WCBW art director, given special citation for scenic design and staging. WNBT cited for camera work.

RCA Laboratories and RCA Victor for the image orthicon camera.

Ruthrauff & Ryan and Lever Brothers for consistent effort in developing effective tele commercials.

WNBT for its sports programming and Philco's WPTZ for airing the games sponsored by Atlantic Refining Co.

WKBW, Chicago. and WCBW for educational programs.

To WRGB, G.E. station, Schenectady, top honors, for children's programming.

To WCBW for the year's outstanding news programs. WNBT for its outstanding productions including "Abe Lincoln in Illinois" and "Angel Street."

To AT&T, Du Mont, CBS, and NBC for participation in Lincoln's Birthday telecast, recognized as the year's outstanding special event; telecast in New York and Washington.

To Edward Sobol, producer of "Abe Lincoln in Illinois," and Ernest Colling, producer of "Angel Street," jointly awarded plaques for outstanding direction over WNBT.

RCA and CBS honored for experimentally demonstrating color television.

To Ralph Rockafellow, special award for outstanding service to the American Television Society.

## ***Television Broadcasters Association***

### **AWARDS FOR 1946**

Dr. Albert Rose; Dr. Harold Bell Law; and Dr. Paul Kessler Weirmer, all of RCA Laboratories, for development of the Image Orthicon Camera.

John Royal, vice president, NBC, for telecast of the Louis-Conn fight.

Donovan B. Stetler, Standard Brands, for Best Entertainment Program—"Hour Glass."

Paul Belanger, WCBS-TV, for Outstanding Artistic Program.

Klaus Landsberg, W6XYZ, Los Angeles, for Best Public Service Program.

Dr. Oliver E. Buckley, president of Bell Telephone Laboratories, Inc.; and Keith S. McHugh, vice president of American Telephone and Telegraph, for "outstanding contributions to the field of television."

# TELE EYED FROM THE CAPITAL

By MANNING CLAGETT, Staff Correspondent, RADIO DAILY

TELEVISION was Big Business even before it burst out of New York and a few scattered cities and began to spread across the nation.

Millions of dollars were sunk in television before there were enough sets on hand to support one station with audience-money. And these millions, as the saying goes, are only the beginning.

Just when people began to wonder just how old this television baby had to be before it was born, the multi-million dollar youngster let the world know that he was here—and here to stay. If television won't grow to maturity this year, it may at least reach adolescence, because it already has growing pains.

The FCC, at first convinced that it could stop the rush of big money towards television and give the "little fellow" a better break, soon realized that a prospective tele broadcaster needed more than a heart of gold to build a video station, let alone keep it on the air. The Commission began asking financial questions and the applicants who couldn't produce a little green began to fall by the wayside. But a little think like money couldn't stop this television baby and at the end of last year six stations had been granted licenses, more than 50 other applicants had been granted construction permits and nearly a score of others were either pending or in hearings. Soon, a few other growing pains developed. The FCC found itself confronted with the multiple ownership question. After granting five permits to applicants which, the Commission said, were "controlled" by Paramount Pictures, the FCC clamped the lid on further grants. The Commission finally admitted, however, that the question was a difficult one and agreed to explore the whole question. A strict interpretation of the rule could keep the lid on some of television's pioneers,



Manning Clagett

After finally settling on black and white tele standards in the lower bands more than a year ago, the Commission last year had tossed in its laps another tele problem—whether to throw the old standards in the ashcan and start from the color scratch demanded by Columbia Broadcasting System. The industry formed sides, with RCA color lined up against CBS color and most other black and white enthusiasts insisting that b&w tele should be left alone for the time being. The Commission apparently agreed that the future of tele was in the high frequencies but hesitated to agree to CBS's plea "why not now."

The FCC never worried quite as much over the television receiver problem as it did over FM receivers. Tele receiver production was meager in the days after the war's end, but in the latter half of 1946 picked up and this year should take care of the number of tele stations actually on the air. Sets generally were expensive, but this was another growing pain that was expected to ease off, as its older brother radio found out.

Towards the end of last year, too, the FCC began to realize that television would bring it many other problems. Instead of worrying about what was heard over the air, the Commission realized it would soon be concerned over what was seen over the air. New problems would thus be dumped in the Commission's lap. In many cities and municipalities, authorities have set up local censorship boards to pass on movies. Movies that are approved for nation-wide distribution often run into local trouble. What about televising a play or movie that some city might not like? What to do about a Huey Long who comes into a million homes by television? There are plenty of people who will say that it's none of the Commission's business. The Commission may agree, but at the same time it realizes that its troubles with this big baby are only beginning.

# **Television Organizations**

## **... personnel—functions**

### **Television Broadcasters Assn. Inc.**

500 FIFTH AVE., NEW YORK 19, N. Y.  
Lackawanna 4-4788

#### **OFFICERS**

|                                   |                                      |
|-----------------------------------|--------------------------------------|
| President.....Jack R. Poppele     | Secretary-Treasurer ....Will Baltin  |
| Vice-President.G. Emerson Markham | Asst. Sec.-Treasurer...Paul Raibourn |

#### **DIRECTORS**

Dr. Allen B. DuMont, Allen B. Dumont Laboratories, Inc.; F. J. Bingley, Philco Corp.; Curtis W. Mason, Earle C. Anthony, Inc.; John F. Royal, NBC; Jack R. Poppele, WOR, New York; Frank P. Schreiber, WGN, Inc.; Paul Raibourn, Television Productions, Inc.; Ernest H. Vogel, Farnsworth Television & Radio Corp.; G. Emerson Markham, General Electric Company.

#### **FUNCTIONS**

Founded January, 1944, as a non-profit organization of television broadcasters and others engaged in any business directly connected with television broadcasting. Objects are to foster and promote the development of the art of television broadcasting; to protect its members in every lawful and proper manner; to foster, encourage and promote laws, rules, regulations, customs and practices which will be in the best interest of the public; to protect the interests of the members of the Association by opposing the enactment or adoption of any laws, rules, regulations, customs or practices which would discriminate against or in any way injure the members of this Association.

### **American Television Society**

415 LEXINGTON AVE., NEW YORK 17, N. Y.  
Vanderbilt 6-2144

#### **OFFICERS**

|                                     |                                     |
|-------------------------------------|-------------------------------------|
| President.....George T. Shupert     | Treasurer....Archibald U. Braunfeld |
| Vice-President....Ralph Rockafellow | Secretary .....Dian Dincin          |

#### **DIRECTORS**

|                    |                     |                      |
|--------------------|---------------------|----------------------|
| David Hale Halpern | Alice Pentlarge     | Prof. Edward C. Cole |
| Frederick A. Engel | Charles A. Alicoate | Richard Manville     |
|                    | Don McClure         |                      |

#### **FUNCTIONS**

American Television Society is a non-profit group organized to foster the study, understanding and appreciation of television as a cultural, educational entertainment and advertising medium. It provides its members with an intelligence center and clearing house for information pertaining to television and its development; a forum for the exchange of ideas and discussion of mutual problems relating to or affecting television; a television library; special meetings for the dissemination of television information; the opportunity to view and study television technique.



# OPTIMISM KEYNOTES CHICAGO

By NAT GREEN, Staff Correspondent, RADIO DAILY

TELEVISION activity in Chicago will be greatly accelerated during 1947, it is indicated in plans that are being worked out by local station and network officials and members of the Electrical Association's organization to promote Chicago television. Chicago began 1947 with at least two "ifs" clouding the television situation. If the black-and-white vs. color were settled, and if equipment could be obtained, it appeared that several stations would be in operation before the end of the year, joining Captain Bill Eddy's WBKB which for the first few months was assured of holding its place as Chicago's only operating station.

WBKB, the Balaban & Katz station, has taken its place as one of the country's leading video stations and during 1946 it surpassed all others in the country in number of hours on the air. Its total time on the air has been increased to 28 hours a week, and during the year it provided some outstanding programs, particularly in sports. In an effort to find out what kinds of programs are best suited to video and what finds widest acceptance among patrons, the station has telecast hockey games, style shows, ice shows, music, variety shows and many special events. Out of the difficulties encountered they are learning what to do and what not to do, and are constantly accelerating their activities.

Captain Bill Eddy is enthusiastic over the future of television in the Chicago area. "We are constantly extending our activities," he told RADIO DAILY, "and believe that television audiences are due for a tremendous growth this year. At present there are about a thousand sets in use in this area. By the end of the year there will be nearer 50,000. We refuse to concede first place in television to New York and are out to challenge them."

As this is written it appears as if WGNA, the tele-sister of WGN, will become the second Chicago television station, coming on the air in June or July if transmitters and other equipment are received. WGNA's activities up to February 1 were confined to non-air demonstrations of two cameras and half a dozen receivers. Construction of WGNA is under

supervision of Carl J. Meyers, director of WGN engineering. The WGNA transmitter is to be located on the 29th floor of Tribune Tower, with the antenna atop the building. The construction permit from the FCC assigns WGNA to channel 9-186-192 megacycles. Effective radiated video power will be 18.4 kilowatts and audio power 11 kilowatts.

Frank P. Schreiber, WGN general manager, told RADIO DAILY: "WGN has been a pioneer in AM broadcasting for 25 years; one of the pioneers in FM broadcasting, which we began in October, 1941 (WGNB), and a pioneer in facsimile broadcasting, which was resumed in July after experimental work in 1939. Now we enter the television field, and as in all previous radio operations, we will be a leader in television."

ABC, which has had a working agreement with WBKB for some time, plans eventually to have its own station here, according to Jim Stirton, television sales head; and Manager Chick Showerman of NBC says that network will have a tele station just as soon as possible. The main thing holding up these stations is a scarcity of materials.

With the expected increase in the installation of television receivers in the Chicago area, dealers have set up a plan for training their representatives in the technique of set installation. Once a week for ten weeks there will be classes supervised by Capt. Bill Eddy of WBKB to teach television fundamentals. Later the manufacturing companies will give advanced instruction.

The outlook for commercial video programs is bright. Prospective sponsors who have been watching the results of sponsored programs on WBKB believe that video will be a powerful sales medium. Just how rates will be worked out remains to be seen. It is generally agreed that present rates will have to be periodically revised as the number of sets increases. Local dealers report that sales of receivers are growing rapidly, and that every indication points to huge television audiences in the very near future.

# HOLLYWOOD TELE A REALITY

By RALPH WILK, West Coast Representative, RADIO DAILY

INDICATIONS are that all seven of the prospective Los Angeles - Hollywood television stations will be on the air early in 1948. Despite some estimates that all seven could be operating commercially by the holiday period of this year, local engineers will be satisfied if their respective stations are doing business early next year.

KTLA, which was formerly W6XYZ and which is owned and operated by Television Productions, Inc., a subsidiary of Paramount Pictures, took to the air commercially on Jan. 22, 1947.

Putman Motors of Los Angeles bought the privilege of being the first to sponsor a video show in the Southland in the interest of its distribution of Mercurys and Lincolns. Klaus Landsberg, who is in charge of West Coast operations of Television Productions, produced the hour show, and was given assistance by Leon Benson of the J. Walter Thompson agency. Several representatives of Eastern advertising agencies came West to attend the initial show.

Landsberg used six cameras to pick up the premiere for relay to his company's Mt. Wilson transmitter 18 miles away from where it was rebroadcast to an area between Santa Barbara and San Diego and as far inland as San Bernardino, Riverside and Redlands.

KTLA's signal carries 150 miles with a clear, undistorted picture at the reception points. Four iconoscope cameras and two candle light or image orthicon cameras were used in connection with the initial commercial program.

Harry R. Lubcke, who is still in charge of television for Don Lee, organized the Thomas S. Lee television system in November, 1930. The first televised image on W6XAO, transmitted through equipment Lubcke built and in many instances invented and manufactured himself, was a short motion picture film, the subject a wagon rolling across western plains.

The initial full hour program presented on the station was on Dec. 23, 1931 and the first regular program services was begun March 10, 1933. An important chapter in television history was the purchase of a Hollywood mountain, right in the heart of the city, and the construction

there of the first built-for-television studios in the world.

KFI has been granted Channel 9, with five kilowatts, visual, and two and a half kilowatts, audio. It has already made some important outlays of money to improve its three-quarter acre transmitter site atop Mt. Wilson.

KLAC has been granted Channel 13, five kilowatt, visual, and three kilowatt, audio. KLAC's sister station, KYA, San Francisco, has also a tele permit.

ABC will use Channel 7, 4.5 kilowatt, visual, 2.7 kilowatt, audio. It has a half acre site on Mt. Wilson, and is negotiating for a site for its proposed Hollywood tele station.

NBC has also been granted a permit, and plans erection of a tele studio at its present site in the heart of Hollywood. It also has a transmitter site on Mt. Wilson, and Hal Bock, veteran publicity director of NBC's Western Division, will be in charge of its video plans here.

The Times-Mirror Company, which publishes the Los Angeles "Times," will operate KPTV and has Channel 11, 19.45 kilowatt, visual, 19.15 kilowatt, audio. It has ordered a transmitter from RCA and is hopeful of delivery in October.

One month after television was authorized on the West Coast, Patrick Michael Cunning Television Productions had four shows in preparation.

Cunning is also associated with Edgar Bergen in Bergen-Cunning Television Prods., which will concentrate on the making of 16 and 35 mm. films for television.

Telefilms, of which Don McNamara, former program director of KFI, is in charge of tele activities, is making a strong bid for national video film business. It filmed the Los Angeles open golf tournament in January for the United States Rubber Company and rushed the films East for televising over WABD, New York; WTTG, Washington, and WPTZ, Philadelphia. Telefilms is also planning to televise a fashion show for the California Apparel Creators, which would be shown in department stores as well as over tele stations, and has other important video plans.

# THE TELE RECEIVER MARKET

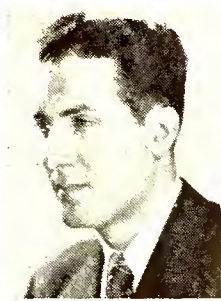
By JIM OWENS, Staff Writer, RADIO DAILY

**F**EW industries have appeared on the American scene adorned with as much enthusiasm and prediction as to its economic and cultural capabilities, as did commercial television in the early months of 1946. And few industries were plagued in their early beginning with the economic ironies of a nation still in the process of a sluggish return to peacetime production, as was television. Further,—few large scale industries had a “ready” market potential of millions of dollars per year as had video manufacturers who were equipping plants during the early months of last year, albeit with the scant amount of necessary materials available and the attendant high costs of labor.

Although there were only seven to 10,000 sets in existence at the end of '45, several surveys indicated that anywhere from three to 10 million persons were waiting, money in hand, to buy receivers within the next couple of years, if not immediately. Television was growing city by city, and Charles R. Denny, Chairman of the FCC, predicted 100 stations on the air by the end of 1947.

However, the spread of the teleset market, according to industry executives, depended greatly on the spread of television networks. Only via networks, the listening audience, i.e., the buying public, would television begin to reap the tremendous profits predicted for it. Quality programs were necessary for video to attract a steady audience; and quality programs were of prohibitive expense without the aid of the advertisers' dollars.

By the end of 1946, only one phase of this two-cornered problem had begun to show signs of solution. By the end of the year, according to an official report of the Radio Manufacturers Association, 6,476 telesets had been produced and marketed. The unofficial figure, however, ac-



Jim Owens

ording to a check of those companies actually producing sets during 1946, shows that over 10,000 receivers were turned out—the bulk of which were made available during the last six months.

The production outlook for this year, while greater beyond comparison in unit total, does not begin to approach settlement of the market problem—although it should be noted here that present distribution techniques render physical limitations somewhat less confining.

At the Television Broadcasters Association Convention in New York last Fall, manufacturers made an ambitious prediction of a million sets by the end of 1947. However, due to the continued uncertainty of economic conditions, the best estimates for production this year indicate that something over 500,000 receivers will be turned out. Companies who will combine to produce this figure, (some of which were in production last year) include: RCA, Philco, General Electric, Du Mont, Federal Telephone & Radio Corp., Westinghouse, Garod, Viewtone Television Corp., Sparks-Withington, Bendix, Stewart-Warner, Crosley, Farnsworth and Stromberg-Carlson. About half of this amount or 250,000, are expected to be produced by RCA alone.

While the demand was high last year, and is expected to continue so for an undetermined period, price of sets will be the most important factor in maintaining it, according to manufacturers. The range will probably be from \$200 to \$500 in the “popular” category, and extend to \$2500 in the “deluxe” class.

Significant is the prediction by RMA chief R. C. Cosgrove who feels that “until we turn out a good set for \$150, we won't get profitable volume.” Costs of materials and labor, however, based on last year's performance, offer little to indicate the achievement of this level during 1947.

The distribution angle is of equal importance to the actual unit output, industry experts feel, since the manner in which it is handled will greatly facilitate the early establishment of video networks. Market-wise manufacturers are apportioning sets to cities presently served, or about to be served, by television stations, rather than concentrating on areas with huge buying potentialities.

# VIDEO IN BRITAIN 1946-47

By E. C. THOMSON, *British Broadcasting Corp.*

**B**RITISH television opened up again last June after the screens had been dead for nearly seven years. Since then the staff have made gallant and successful efforts to make up for lost leeway, and it can be truly said this Christmas that the service lags little, if at all, behind the standards of September 1939, when the BBC high definition television service had completed three years as the first of its kind in the world.

First renewal of activity began in November 1945, after the Government's acceptance of the recommendations of Lord Hankey's Television Committee that the service should be resumed where it left off. The station occupies a modernized corner of Alexandra Palace, an old amusement center in North London, 300 ft. above sea level. Among the first arrivals was the new Head of the Service, Maurice Gorham, lately in charge of the Light Program and before that Director of the A.E.F. Program. Around him gathered the new program staff—new only in the sense that they were taking up television afresh: Denis Johnston as Program Director after a long spell as radio war reporter; Cecil Madden as Program Organizer after directing the Overseas Entertainment Unit; George More O'Ferrall as Senior Play Producer after years of army service in the Far East and work with the A.E.F. Program.

And while the program staff laid their plans, the technicians, led by the Superintendent Engineer, Douglas Birkinshaw, submitted the entire transmission plant to the most thorough overhaul it had had since the pioneer days of 1936. As a result of this overall spring-clean, the apparatus, by the time the service opened, was producing better pictures, with improved detail, finer gradation and less "streaking," than in 1939.

All this time the two disused studios were being put in working order, stored equipment was being brought out again, and studio staffs were recapturing the old skill. One of the two mobile units was being overhauled piece by piece.

Zero hour was 3 p.m. on June 7th. Up to that date, activity at the television station, though never leisurely, was delib-

erate and comparatively unhurried, but everyone knew that once the plunge was taken, there could be no pause. Television, perhaps the most absorbing, is also one of the most exacting forms of entertainment; to keep the screens "alive" for at least three hours a day—and this was what the new schedule demanded—requires concentrated teamwork. Actual screentime produced in a day's "shooting" by the average film studio is less than three minutes.

At the scheduled hour the plunge was taken. Miss Jasmine Bligh, one of the original television announcers walked towards an emitron camera on the terrace in Alexandra Park and to the strains of a Television March specially composed by Eric Coates, smiled into the lens and made the first announcement. At the inaugural ceremony a few moments later in Studio A, the Postmaster-General, the Earl of Listowel, formally declared the service open, stressing that television was intended as a recreation for the many, not a luxury for the few, and expressing the hope that the service would be extended to Birmingham in the not far distant future.

Viewers then saw their first studio program, but in less than twenty hours the service was put to a supreme test. The result was a triumph. Television cameras mounted on a stand in the Mall opposite the Royal saluting base defied cloud and shower to present an open-window view of the complete Victory Parade—the arrival of Their Majesties, the long procession itself and even some of the aircraft in the Fly-past.

People who had cherished their television sets for this moment through all the miseries of air-raids and black-out were not disappointed. Some confirmed that pictures were better than in 1939; all awaited with eagerness the promise of those ever-popular features, plays, variety, "Picture-Page," demonstrations, children's features, cartoon films and the panorama of "O.B.'s" from sports grounds, theaters and dance-halls.

The promise has been kept, despite various austerity handicaps in the world of entertainment.

Outside Broadcasts continue to yield the most spectacular successes. From the Mall the mobile unit proceeded a week later to Wimbledon for the final matches for the Wightman Cup. Wimbledon is far outside the circle of co-axial cable which rings the West-End and gives direct connection between the mobile unit and Alexandra Palace.

Since then the television audience has been taken to other theaters for dress circle views of such shows as "Follow the Girls" at His Majesty's and "Sweetheart Mine" at the Victoria Palace. From time to time the old Bedford Music Hall, Camden Town, was "taken over" by the B.B.C. for an evening of televised "Variety on View," in the presence of a specially invited audience. In July the mobile unit drew up at the Open Air Theater, Regent's Park for a complete performance of "A Midsummer Night's Dream." Public ceremonies give full scope to television's unique quality of "actuality" or "immediacy," demonstrated in a most spectacular manner by the Lord Mayor's Show and most impressively by the Service of Remembrance at the Cenotaph.

Television cameras also roamed the ballroom floor at the Royal Albert Hall and

the Palais de Danse, Hammersmith. In the open air they ranged from Barnet—in the north—for amateur football, to Ascot—in the south—for the new King George VI Stakes. Ascot, twenty-nine miles from Alexandra Palace, is the most distant point from which the mobile units have operated.

The Zoo was toured and another Regent's Park fixture was the Jubilee Motor Parade. In November the second mobile unit was restored to the service.

Among studio programs, plays have come first in popularity. Casting a wide net, the producers brought in dramas, comedies, thrillers — Shakespeare and Shaw, Oscar Wilde and Edgar Wallace. Besides Shaw's "St. Joan," Ian Hay's "The Middle Watch," Eugene O'Neill's "Anna Christie" and many other established successes, demanding the utmost resource in studio accommodation, scenery and costumes, viewers saw numbers of plays specially written or arranged for television, among them J. B. Priestley's new play "The Rose and Crown," and the well-known stage and film story, "Thunder Rock."

New television personalities have emerged. Mr. Philip Harben, suave and deft, early established himself as a master of televised cookery; in the Television Garden, Mr. F. Streeker has enlivened horticulture with an engaging sense of humor. The three announcers—familiar guests in every television household—are Miss Winifred Shotter, of stage, screen and E.N.S.A. fame; Miss Gillian Webb, R.A.D.A. prizewinner, who was appointed in July on the resignation of Miss Bligh; and Mr. McDonald Hobley, former actor and S.E.A.C. radio announcer.

Cartoon and interest films were shown in abundance, but permission has not yet been obtained for televising newsreel. The B.B.C.'s own Film Unit has not, however, been inactive and among its scoops was an exclusive interview with Mr. George Bernard Shaw on his 90th birthday. The *Queen Elizabeth* trials off the west of Scotland were filmed and shown to viewers on the day the liner set off on her maiden peacetime voyage to New York. As part of a regular exchange arrangement with the National Broadcasting Company of America, films taken on board during the voyage were flown back from New York and televised a week later.



**BOB EMERY**

Manager, Program Dept.  
Dumont Television

**W A B D**

Producer, "Rainbow House"  
WOR - Mutual

# BELL SYSTEM COAXIAL CABLES

By L. G. WOODWARD, General Manager, Long Lines, A. T. & T. Co.



L. G. Woodward

FOR many years, in the interests of economy and better service, the Bell System has devoted a large amount of research work to carrier systems of transmission, by means of which a number of communication channels can be provided over a given physical facility by the modulation of suitable carrier frequencies.

An early fruit of this work appeared in the form of a relatively narrow band carrier system for use on open wire lines, which made it possible to superpose three voice channels on the basic channel provided by one pair of open wires. Later a broader band system was developed which provided an additional complement of twelve voice channels on an open wire pair. A similar system supplied a total of twelve channels on two cable pairs. Still later came the very broad band coaxial cable system, by means of which several hundred voice channels are provided over a pair of coaxial tubes about the size of a lead pencil. This system can be arranged to transmit television signals.

Ten years ago the first inter-city coaxial cable was installed by the Bell System, between New York and Philadelphia. This cable contained but two coaxial tubes, the repeaters were spaced 10.5 miles apart, and the system was capable of transmitting a frequency band one megacycle in width. These early repeaters have since been replaced with repeaters of a later design, the spacing cut in half and the band width increased to about three megacycles. All coaxial cables now in service transmit this band of frequencies, but an increase in the diameter of tubes from about one-quarter inch to three-eighths of an inch has made it possible to lengthen out the repeater spacing from five to eight miles.

In 1940, two more short coaxial cables were installed, one between Stevens Point,

Wisconsin, and Minneapolis, and the other between Baltimore and Washington. The war then substantially halted construction and until last year only two additional cables were placed—Atlanta to Macon and Philadelphia to Baltimore—both of which were installed in 1942 but were not activated for broad band service until about a year ago.

By the end of 1945 there was a total of some 1100 miles of coaxial cable in the plant. At present there are nearly 3000 miles. Next year alone, barring material shortages, we expect to install an additional 3000 miles. By 1950 we hope to have some 12,000 route miles of coaxial cable in service. The mileage of single cable will be even greater than this figure, since on some routes there will be more than one cable. Most of this cable will contain eight tubes.

The map accompanying this article shows the cables now in place or being installed and those projected for the next few years. The southern trans-continental route to Los Angeles is expected to be completed by the end of 1947, as well as an extension to Miami. We hope also to reach Pittsburgh, Cleveland, Detroit, Chicago, St. Louis and other cities in this general area by the end of 1948 or shortly thereafter. Not shown on the map is the radio relay system now being installed between New York and Boston which at present is planned to be put into service on an experimental basis in the spring of 1947.

As has been indicated the development of broad band transmission systems, including the coaxial cable, was undertaken primarily to provide facilities for the regular communication services of the Bell System. The program ahead is controlled chiefly by the need for additional telephone circuits. From the viewpoint of network television service, it is of special interest that these telephone circuit needs are so great as to require the very large program of coaxial cable construction here outlined. By the addition of special equipment, including the necessary transmitting and receiving terminals, and by

making adjustments of greater precision than are required in the operation of coaxial systems for telephone service, coaxials can be adapted to the transmission of television programs. These measures take some time, however, so that television service is not expected to be available until a little later than the dates indicated in the preceding paragraph.

Thus far, two one-way television circuits operating in opposite directions between New York and Washington have been made available to television broadcasters on an experimental basis since February, 1946. We plan to add two additional one-way circuits between these points by the end of next year, and next spring it is expected that an extension of television facilities from New York to Boston will be available by means of the radio relay system mentioned previously.

Owing to the heavy demands for telephone service, it is probable that for the next two or three years there will not be enough coaxials available for television service on most of the major routes to permit exclusive use of the facilities to be assigned to individual networks. While this will require sharing of facilities, as

has been done in the case of the New York-Washington cable, such part-time use may prove to be sufficient to care for the needs of the broadcasters in the early stages of network service.

Looking to the future, the Bell System has under development a new type of repeater which, as now projected, will make it possible to transmit a band of frequencies about seven megacycles in width over coaxial systems. This entire band could be used for television or a part of the band could be assigned to television and the remainder to telephone, thus enabling the coaxial tubes to be used simultaneously for the two services. In addition to the increase in television channels obtained by this means, our present plans call for additional cables on some of the heavier routes.

Further, the results of the New York-Boston radio relay trial may indicate the application of this type of transmission system to other routes. In view of all these factors, we can be confident that sharing of use of facilities for television network service will not long be necessary, assuming that the needs of the individual broadcasters are such as to require exclusive use.

**For the best in regional news . . .**

**AP**

# BELL SYSTEM COAX

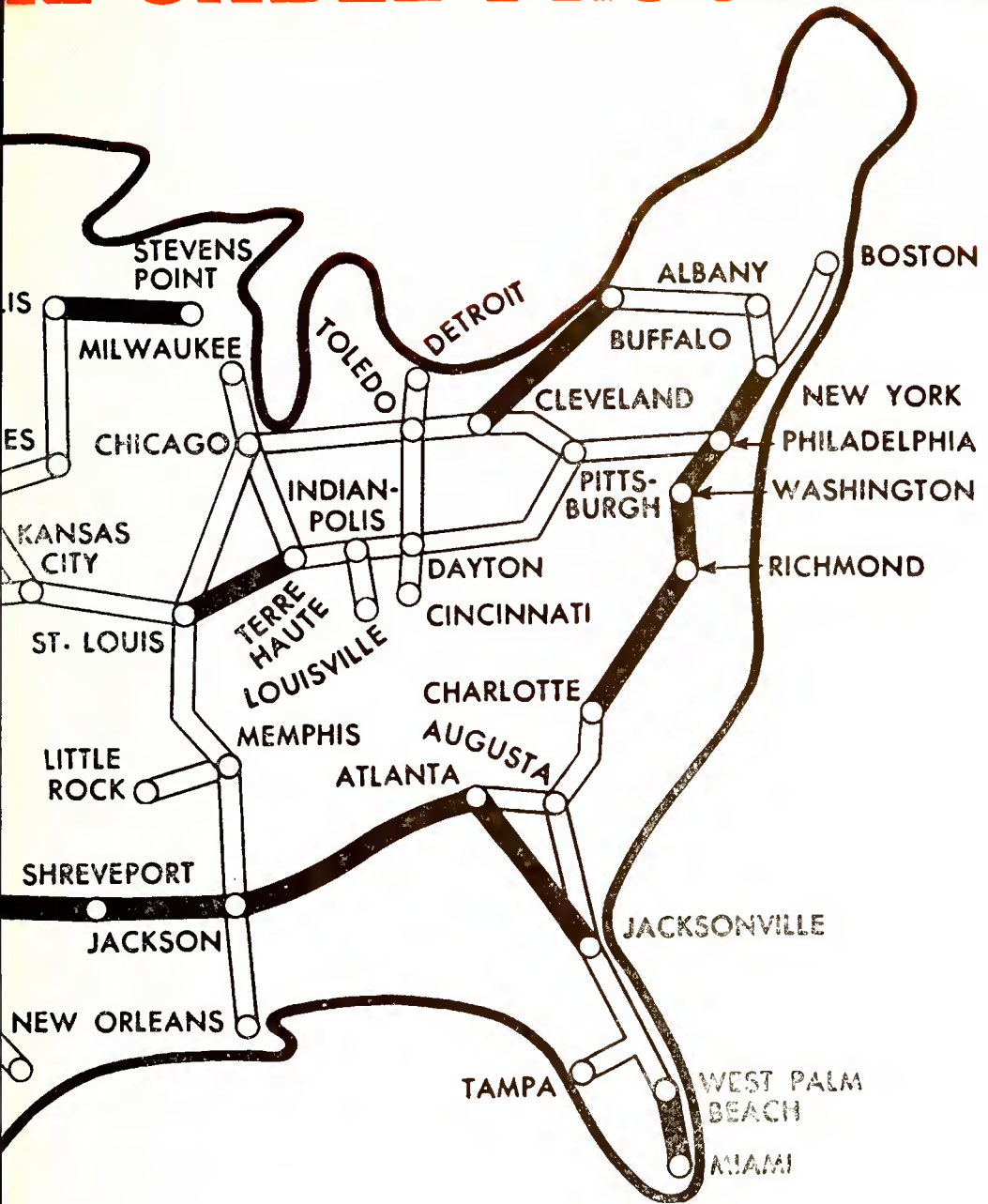


- COAXIAL CABLE NOW UNDER CONSTRUCTION OR INSTALLED**
- COAXIAL CABLE PLANNED FOR NEXT FEW YEARS**

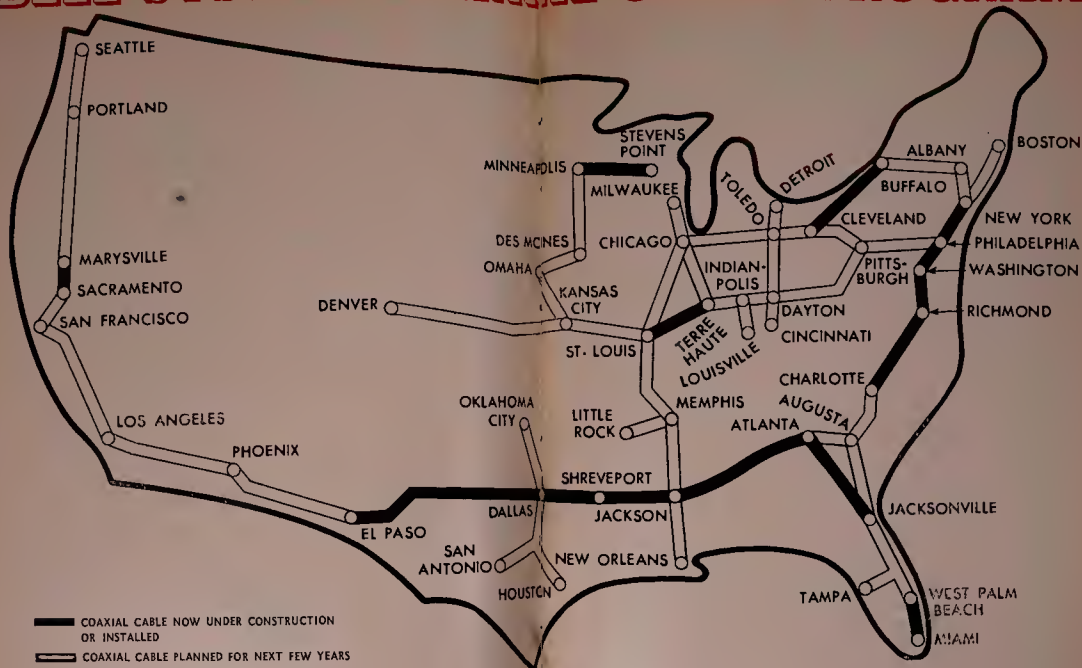
**NOTE:** These coaxials are being installed and equipped primarily for telephone circuits. With special additional equipment, coaxial cables can carry television programs. Such service is now in experimental operation between Washington and New York



# AL CABLE PROGRAM



# BELL SYSTEM COAXIAL CABLE PROGRAM



**NOTE:** These coaxials are being installed and equipped primarily for telephone circuits. With special additional equipment, coaxial cables can carry television programs. Such service is now in experimental operation between Washington and New York

# TELEVISION TALK

## A MODERN GLOSSARY

(Courtesy Caldwell-Clements, Inc.)

### A

**AMPLITUDE**—The magnitude of any quantity, particularly voltage or current.

**AMPLITUDE MODULATION**—The periodic variation of the voltage or current in a circuit in accordance with some signal being transmitted.

**ANTENNA**—An electrical circuit for radiating or receiving electromagnetic waves (radio).

**ASPECT RATIO**—The ratio of picture width to picture height. Now 4:3.

**AUDIO**—(I hear.) A term applied to any part of a radio or electrical system handling frequencies in the audible range.

### B

**BAND-PASS FILTER**—An electric circuit which will transmit frequencies between two limits and reject others outside those limits.

**BANDWIDTH**—The number of cycles per second required to convey the information being transmitted either visual or aural.

**BLACKER-THAN-BLACK**—A portion of the television signal devoted to synchronizing. These synchronizing signals are transmitted at a higher power than the blackest part of the picture, so that they will not appear on the screen.

**BLANKING**—The process of cutting off the cathode ray during the time it is not forming a part of the picture. This occurs when the spot returns from the far right to begin the next line and from top to bottom to the top of the picture.

**BLOCKING OSCILLATOR**—A type of oscillator which generates intermittent signals used for scanning in cathode ray tube.

**BLOOM**—The condition of overall bright illumination of the picture tube obscuring any picture detail.

**BOOSTER ANODE**—A conductive coating placed inside a cathode-ray tube near the screen and because of a high positive voltage applied to it, causes a brighter picture.

**BRIGHTNESS CONTROL**—A control on the receiver for regulating the overall brightness of the picture.

### C

**CAMERA TUBE**—The electron tube used to translate a scene into electrical impulses.

**CARRIER**—The term applied to the high frequency radio wave which is modulated by the audio and video signals.

**CATHODE**—The electrode in a tube from which electrons are obtained, usually by heating or by photoelectric effects.

**CATHODE RAY TUBE**—An electron tube in which streams of electrons from a cathode are formed into a pencil-like beam and directed by means of electric or magnetic fields over a target, usually a fluorescent screen which glows wherever the beam strikes.

**CHARACTERISTIC IMPEDANCE**—The input impedance of a transmission line infinitely long or a short line terminated in its characteristic impedance. The impedance is independent of length and depends on size of conductor and spacing.

**CLIPPER**—A circuit used to separate signals of different amplitudes. In television these circuits are used to separate the synchronizing pulses to the video and signal.

**COAXIAL CABLE**—A particular type of cable capable of passing a wide range of frequencies without the usual prohibitive losses. Such a cable in its simplest form consists of a hollow metallic conductor with a single wire accurately confined along the center of the hollow conductor.

**CONTRAST**—This refers to the ratio of black to white portions of a picture. Pictures having high contrast have very deep blacks and brilliant whites, while a picture with low contrast has an overall gray appearance.

**CONTRAST CONTROL**—A control on the receiver which regulates the video signal strength. This has the effect of changing the ratio of the black and white portions of the picture. It corresponds to the volume control in an aural receiver. is performed.

**CONTROL ROOM**—Studio facilities from which television cameras, lighting, shading and mixing is performed.

**CYCLE**—One complete set of values in any series of phenomena which repeats periodically. In radio this usually refers to one complete range of values for either voltage or current.

**D**

**DAMPING CIRCUITS**—These circuits are used to prevent high voltages from being induced in the deflection coils when the current changes suddenly.

**DC RESTORER**—This circuit regulates the average brightness of the television picture tube to correspond with the average brightness of the scene being transmitted.

**DC TRANSMISSION**—This term applies to circuits which will pass zero frequency.

**DEFLECTION**—The movement of the cathode ray beam by electric or magnetic fields.

**DEFLECTION YOKE**—The combination of coils used to direct the cathode ray up-and-down and right-and-left to form the image.

**DELAY SCREEN**—A fluorescent screen used in cathode ray tubes, which has the property of phosphorescence. The light intensity of any particular spot dies out gradually after the ray moves to a new position when this material is used.

**DIFFERENTIATING CIRCUITS**—These circuits respond to the rate of change of a pulse and are used in synchronizing the receiver scanning.

**DIODE**—A vacuum tube having two elements, one of which emits electrons (the cathode) and the other the anode. It is used for rectification (detection), that is the conversion of alternating currents into direct currents.

**DIPOLE ANTENNA**—An antenna consisting of two conductors, usually of equal length extending in the same straight line, with a pair of lead or feeder wires connected at or near the inner ends, is known as a doublet. For short waves the physical dimensions are such that self-supporting metal rods or tubes can be used.

**DIRECTOR**—A section of an antenna used to increase the pick-up from the side on which the director is placed.

**DISSECTOR TUBE**—The special type of television tube used in the pick-up camera in the Farnsworth system.

**DISTORTION**—Any change in the original frequency, amplitude or phase of a radio signal.

**DIVERGENCE**—The spreading of a cathode ray stream due primarily to the mutual repulsion between the electrons that compose it. The function of the focusing arrangement in the tube is to counteract this effect.

**DOLLY**—The movable stand upon which the television camera is mounted.

**DOUBLE SIDE BAND**—When a carrier is modulated by a plurality of signal frequencies, two distinct bands of frequencies appear, due to the modulation process, one on each side of the carrier frequency.

**E**

**ELECTRODE**—A metallic conductor introduced into a vacuum tube for a specific purpose. It must be electrically connected to the external circuit. In general each electrode is referred to by its specific use, such a cathode, grid, anode, etc.

**ELECTROMAGNETIC FOCUSING**—A system in which magnetic fields parallel to the motion of the electrons are used to confine them to a narrow beam.

**ELECTRON GUN**—That part of a cathode ray tube in which the electrons are emitted, formed into a beam and deflected.

**ELECTRON LENS**—A systematic arrangement of electromagnetic or electrostatic fields, having symmetry about the axis of a cathode ray tube, as to their radial components, established for the purpose of controlling the divergence and convergence of the electron ray.

**ELECTRON MULTIPLIER**—An evacuated amplified tube in which one or more anodes have photoelectric surfaces which are exceedingly active as to secondary emission. The original electron emission is cascaded by the secondary effects.

**ELECTRON TUBE**—A device employing a cathode, an anode and possibly additional electrodes for controlling the volume and direction of flow of electrons which constitute electric current.

**ELECTROSTATIC FOCUSING**—A system in which electric fields are employed to confine the electrons into a thin stream.

**EMISSION**—The continuous liberation of electrically charged particles, either ions or electrons, into space (usually evacuated) from a surface. The most important case practically is where these particles are negatively charged, i.e., electrons.

**EQUALIZING PULSES**—These are signals transmitted after each vertical synchronizing pulse to insure correct start of horizontal sweep circuit.

## F

**FACSIMILE TRANSMISSION**—The electrical transmission over wires or radio circuits of printed records and pictures. While this term originally referred to black-and-white reproductions only, it is now considered to include processes producing half-tone and shaded effects as well.

**FADE-OUT**—A camera technique in which a scene is gradually dimmed from view.

**FIDELITY**—The faithfulness with which a system reproduces audio or video signals.

**FIELD**—This term refers to one set of scanning lines making up a part of the final picture. In present standards, pictures are transmitted in two fields of 262½ lines which are interlaced to form 30 complete frames per second.

**FLUORESCENT SCREEN**—A chemical coating on the inside of a cathode ray tube which emits light at the point where a cathode ray beam strikes.

**FLYBACK**—In scanning, the spot is moved across the screen at a definite rate in one direction for each scanning line, thereupon, it is necessary to restore it to start of the next line in a very short interval of time, say three or four millionths of a second. This return time is termed flyback.

**FOCUS**—In a cathode ray tube this refers to the size of spot of light on the screen. The tube is said to be focused when the spot is smallest. This term also refers to the optical focusing of the camera lenses.

**FRAME**—One of a series of complete pictures that are successively viewed so as to simulate moving scenes.

**FRAME FREQUENCY**—The rate at which frames are sent each second in the various moving picture and television applications.

**FRAMING CONTROL**—This control on a receiver adjusts the picture repeat rate to that of the transmitter. It is also called the vertical hold control.

**FREQUENCY**—A term applied to the rate of repetition of voltage or current or other periodic functions.

**FREQUENCY MODULATION**—A process by which the carrier frequency is modulated in accordance with the information to be transmitted.

**FUNDAMENTAL**—The basic frequency of a wave or sound. It is sometimes referred to as the "first" harmonic.

## G

**GAS-FILLED TRIODE**—A type of vacuum tube in which the elements operate in an atmosphere of gas, such as mercury, argon, helium, etc.

**GHOST**—A secondary picture formed on a television receiver because the signal from the transmitter reaches the antenna by more than one path. Ghosts are usually caused by the radio signal being reflected from objects within approximately one mile of the receiver antenna.

## H

**HALATION**—The ring of illumination which surrounds the point at which the electron beam strikes the fluorescent screen.

**HALFTONE**—A method whereby photographs having various degrees of lights and shadows can be reproduced in ordinary printing, using a system of dots which are substantially undistinguishable to the unaided eye. However, the dots are graded as to size or density so as to produce the highlights and shadows of the pictures.

**HARMONICS**—In electrical and radio circuits the fundamental current waves are usually accompanied by others whose frequencies are equal to some whole number multiple of that fundamental. These multiples are also called harmonics.

**HEAVISIDE LAYER**—The ionosphere. A region of ionized air some fifty miles above the surface of the earth. Its lower boundary acts as a reflective surface or "mirror" for radio waves. Rapid changes in the height of this lower boundary and its contour causes much of the radio interference and fading.

**HETERODYNING**—The process of changing frequency by combining the received signals with the output of an oscillator tube in the receiver.

**HORIZONTAL CENTERING**—The position of the picture with respect to the axis of the cathode ray tube. This is accomplished by a control on the receiver.

**HORIZONTAL HOLD CONTROL**—A control on the receiver for adjusting the number of lines per second to correspond with that of the transmitter.

I

**ICONOSCOPE**—A designation used by RCA for a particular type of cathode ray tube developed for the purpose of picking up the scenes to be televised. It is the essential part of a studio camera.

**IMAGE DISSECTOR**—A television camera tube developed by P. T. Farnsworth in which the photoelectrons are moved past pickup aperture by deflection circuits.

**INTEGRATING CIRCUITS**—Circuits used to add up the energy of a number of repeated pulses. These circuits are used in the receiver for synchronization.

**INTERFERENCE**—Random electrical signals which cause noise in the audio system and disrupt the picture in television. This includes automobile-ignition impulses, some diathermy apparatus, neon signs, etc.

**INTERLACING**—A system whereby the odd numbered lines and the even numbered lines of a picture are sent as two separate fields and superimposed to create one frame or complete picture.

**ION SPOT**—A discoloration on the center of the screen of a cathode ray tube caused by heavy negative ions striking it.

K

**KERR CELL**—A chemical solution which changes its light transmission characteristics when electric fields are applied to the solution. An early form of a television reproducer system no longer used.

**KEYSTONE EFFECT**—A distorted field or background noticed in some cases with television pictures, where the opposite edges are not parallel.

**KINESCOPE**—A name applied to the cathode ray tubes used in the television receivers built by RCA.

L

**LENS**—A radial field (electrostatic or magnetic) applied concentric with a cathode ray to concentrate the diverging electrons into a single slender beam, is called a lens.

**LINE**—The path covered by the moving electron spot. The intensity of the spot along this path is altered to create that portion of the picture. In present system 525 lines make up the complete picture.

**LINEARITY**—A term used to refer to the straightness of a characteristic curve, or a portion of that curve, that shows the relation between two quantities or circuit factors. The uniformity of distribution of a regular pattern on a picture tube.

**LINE FREQUENCY**—The number of lines scanned each second. In any system it is equal to the number of scanning lines per frame, multiplied by the framing frequency.

**LINE OF SIGHT**—A straight, unobstructed path between two points.

**LIVE TALENT**—"On-the-spot" televising of events and people in contrast to transmission of film material.

**LUMEN**—A lumen is a unit of light flux. A foot-candle is equal to the illumination that falls on a screen that is placed one foot away from a standard candlepower. One foot-candle is equal to the lumen per square foot of surface.

M

**MEGACYCLE**—A total of one million cycles.

**MICROPHONE BOOM**—The arm which carries the microphone above the area being televised.

**MICROWAVE**—This term generally refers to radio waves having a wavelength of less than one meter, that is, one having a frequency greater than 300 megacycles.

**MODULATION**—A process of altering the amplitude, phase or frequency of a radio carrier in accordance with the information to be transmitted.

**MODULATION GRID**—An electrode interposed between the cathode and focusing electrodes in a cathode ray tube, to control the amount of emission and thereby the brilliance of the spot. This controlling effect is produced by altering the voltage of this grid with respect to the cathode.

**MONITORING**—The technique of controlling, at the transmitter, the picture shading, and other factors involved in the transmission of both the scene and the accompanying sound.

**MONOSCOPE**—A television camera tube which contains a simple picture or pattern used for test purposes.

**MOSAIC**—The screen used in an Iconoscope so called due to its similarity to that form of art wherein a great many bits of colored tile are combined so as to form a picture.

**MULTIGRAPH TRANSMISSION**—The condition in which the radio signal from the transmitter travels by more than one route to a receiver antenna usually because of reflections from obstacles. This condition usually results in ghost pictures.

N

**NEGATIVE GHOSTS**—Ghost pictures in which the black and white areas are opposite to those of the real picture.

**NEGATIVE TRANSMISSION**—This has to do with the polarity of transmission of a television signal, or the direction of modulation to produce the light and dark parts of the picture. In negative transmission a white area corresponds to a decrease in the carrier amplitude.

O

**ORTHICONOSCOPE**—A television camera tube combining some of the features of the image dissector and Iconoscope.

P

**PANNING**—(From panorama). A camera technique in which a large arc of the scene is shown by swinging the camera around a central point.

**PEAKING**—A technique of increasing the response of amplifiers at some particular range of frequencies.

**PEDESTAL**—A portion of the television video signal used to blank out the cathode ray beam as it flies back from the right edge of the picture to the left.

**PHASE**—A term used to designate the time relation between the maximum points of two recurrent electrical quantities such as voltage, current, etc. It is expressed in degrees of a circle, one complete revolution of which represents one cycle of one of the waves.

**PHASE SHIFT**—Any change in the phase relations of current or voltage.

**PHOTOELECTRIC EMISSION**—The phenomena of electrons being emitted from certain materials when they are exposed to light.

**PHOTOELECTRIC TUBE**—A tube in which electrons can flow to a charged anode when light falls on the tube causing emission.

**PICTURE ELEMENT**—A small section of a given scene as reproduced by the cathode ray spot at any instant.

**PICTURE NOISE**—Interference signals causing spots of light and other irregular patterns on the received picture.

**POLARIZATION**—A term usually applied to the position of the transmitting antenna, that is horizontal or vertical. The receiver antenna should correspond in most instances to that of the transmitter. At the present time horizontal polarization is standard.

**POSITIVE TRANSMISSION**—A television system in which maximum radiated power from the transmitter corresponds to maximum white area in the picture. Not used in this country.

R

**RADIO CHANNEL**—The "space" in the frequency spectrum allotted to each station. In present television standards the channel is 6 megacycles.

**RASTER**—A term applied to the group of lines appearing on the cathode ray tube in the absence of an incoming video signal.

**REFLECTOR**—A part of an antenna system used to prevent pick-up of signals in one direction and increase it in the opposite direction.

**RELAXATION OSCILLATOR**—A type of circuit which oscillates periodically. Used to generate scanning voltages.

**RETURN TRACE**—The lines on the cathode ray screen formed as the cathode ray beam moves back to its starting position.

S

*SAW-TOOTH*—A voltage or current whose variation with time follows a saw-tooth outline.

*SCANNING*—The process of forming a picture by a spot of light of changing intensity moving at high speed from left to right and in a sequence of rows or lines from top to bottom.

*SCANNING LINE*—One line from left to right of a picture being transmitted.

*SENSITIVITY*—A measure of the ability of a receiver or other device to produce a given output for a given input.

*SHADING*—The process of correcting the light distribution of the image produced by the television camera. This is a part of the station monitoring job.

*SIDE BANDS*—The groups of frequencies higher and lower than the carrier which contain the information being transmitted and produced by the process of modulation.

*SIGNAL*—The electrical impulses which represent the sound or picture elements being transmitted.

*SPECTRUM*—A band or range of frequencies.

*SPOT*—The light produced by the slender beam of electrons on the fluorescent screen.

*SWEEP*—The uniform motion of the electron beam across the face of the cathode ray tube.

*SYNCHRONIZATION*—The process of keeping the moving beam of electrons at the picture tube in the exact relative position with the scanning process at the transmitter.

T

*TELEVISION*—Literally, seeing at a distance. A system of transmitting a scene by dividing it, by a scanning process, into a great number of elemental areas and representing each area by an electrical signal. The electrical signals are received and used to control the intensity of a spot of light to correspond to the light and shade of each original picture area as the spot is moved over a screen, in synchronism with the scanning at the transmitter.

*TELEVISION CAMERA TUBE*—A cathode ray tube used to convert light and shade portions of a scene into electrical signals.

*TELEVISION PICTURE TUBE*—A cathode ray tube in which a picture being transmitted is recreated by a moving beam of electrons.

*TEST PATTERN*—A drawing containing a group of lines and circles, etc. transmitted for receiver and transmitter test purposes.

*TRAP*—A circuit used to reject unwanted signals.

*TRIMMER*—A device which permits a resonant circuit to be tuned over a limited frequency range.

V

*VESTIGIAL SIDE BAND TRANSMISSION*—A method of suppressing part of one side band to limit bandwidth requirements.

*VERTICAL CENTERING*—The control which regulates the position of the picture vertically on the screen.

*VERTICAL HOLD*—A control on the receiver to adjust the field rate of the scanning to that of the transmitter.

*VIDEO*—(I see.) The portion of the television signal which contains the picture information.

*VIEWING MIRROR*—A mirror used to reflect the image formed on the picture tube at a convenient viewing angle.

Y

*YOKE*—A set of coils used around the neck of a cathode ray tube to produce horizontal and vertical deflection of the electron beam.



# TELEVISION HIGHLIGHTS — 1946

(From the Files of RADIO DAILY)

## JANUARY

- 2—The Pacific Telephone & Telegraph Company and subsidiaries announced that \$400,000,000 will be expended in the construction of a coaxial cable from the Colorado River to Los Angeles. Project is included in the major items of a five-year construction program by PT&T and its subsidiaries.
- 4—Leonard F. Cramer, Executive Vice-President of Allen B. Du Mont Laboratories, Inc. predicted that six out of every ten consumers will buy tele receivers in the next two years.
- 9—At a meeting of the American Television Society, M. L. Levy, chief engineer of Emerson Radio & Phonograph Co. revealed that tele manufacturers are planning to display a variety of styles of receivers to the public before the end of 1946.
- 11—Defendants in the Government's television anti-trust suit asked and were granted a 60-day extension for the filing of answers to charges of monopoly in the manufacturing and sale of television equipment. Defendants are: General Precision Equipment Corp., Paramount Pictures, Television Productions, Inc., Scophony Corp. of America, Scophony, Ltd., Earle G. Hines, Arthur Levy and Paul Raibourn.
- 14—At membership meeting of the American Television Society, Edward L. Stasheff, television director of the N. Y. City Board of Education said that television will play a major role in the field of education, and its specific value will greatly overshadow the advantages ever offered by radio.
- 14—WCBW, CBS tele outlet in N. Y., this week doubled its air time by broadcasting five nights, Monday through Friday, for a total of 12 hours.
- 21—The District Board of Zoning Adjustment approved the request of Bamberger Broadcasting Service, Inc., for erection of a 300-foot television tower, in the New York area.
- 21—Hearings on applications for the four television channels in the nation's Capital commenced before the FCC. Applicants are: The Bamberger Broadcasting Service; Allen B. Du Mont Laboratories; The National Broadcasting Company; The Capitol Broadcasting Co., owner of WWDC; The Evening Star Broadcasting Co., owner of WMAL and the Philco Corp.
- 23—A prediction of 100,000 television sets in Washington alone, by the end of 1948 was made by Joseph Katz, president of Capitol Broadcasting Co. at hearing before the FCC for four tele channels in Washington.
- 25—Dr. Peter C. Goldmark, chief engineer of CBS and Dr. Ralph V. L. Hartley of Bell Laboratories received the two top honors of the Institute of Radio Engineers at the organization's 34th annual banquet at the Hotel Astor.
- 29—Two-hundred television leaders, advertising agency executives and members of the press gathered at the Hotel Statler, Washington, D. C. for a one-day television institute.
- 30—Application for an experimental, high-frequency color tele station was filed with the FCC by the Cowles Broadcasting Co., operators of WOL. The firm believes it will be the first color video outlet slated for the capital.
- 31—Demonstration for the press of CBS high-definition television in full color, broadcast in the ultra-high frequencies got under way at the network's special studios in its home office building. Public showing, originally scheduled for last month was postponed.
- 31—FCC Chairman, Paul Porter, in determining who gets Washington's four tele channels would not recommend sharing of channels by any of the applicants.

## FEBRUARY

- 1—In a talk before 300 members of the American Marketing Association at the Hotel Commodore in N. Y., J. R. Poppele, president of the Television Broadcasters Association and vice-president of the Bamberger Broadcasting Service, Inc. said that television does not threaten the existence of current advertising media, but will

operate in a realm of its own, "providing a unique form of entertainment to millions of people, and will help create new wealth for the nation."

- 1—Tele plans for coverage of the Louis-Conn fight in June were tentatively set. Plans call for airing by NBC over WNBT and for transmission via coaxial cable to Philadelphia, Washington and Schenectady. NBC's video chief, John F. Royal met with Mike Jacobs, promoter of the championship bout, presumably to set final arrangements.
- 4—The Columbia Broadcasting System staged a series of color-tele demonstrations under the direction of Dr. Peter C. Goldmark, director of engineering research and development, and Worthington Miner, manager of the web's tele department. Experts forecast the production of receivers and transmitters during the late fall of 1946 or early in 1947.
- 5—The FCC named applicants involved in video requests for 11 cities, including New York, Los Angeles and Philadelphia and reported that dates for hearings would be set later.
- 5—The British Broadcasting Corp. resumed television operations at 11 a.m. (GMT), Feb. 1, after a black-out for the last 6 years. A black cross on a white background was "flashed" from Alexandra Palace, former exhibition center. Experimental broadcasts will continue daily for two and one-half hour periods as the industry works on developing new sets.
- 6—Inauguration of the coaxial cable linking television with Washington, Philadelphia, New York and Schenectady is scheduled for Feb. 12, with a special Lincoln's Birthday program from the nation's capital. The telecast will be pooled with NBC, CBS, DuMont, Philco and General Electric participating in the broadcast.
- 14—NBC, CBS and DuMont staged a television program pickup in Washington as a sequel to the Lincoln Day demonstration of the Washington to New York coaxial cable link scheduled for Feb. 12th.
- 14—Experiments in television relay equipment installed in a blimp were conducted by General Electric and will be resumed by engineers soon.
- 15—Army-Navy announcement that plans to telecast the atom bomb test are being studied brought a cool response from FCC experts who claimed that it would "not be feasible."
- 15—Owners of DuMont tele receivers in the N. Y. area will be provided with service to convert over to the new channel frequencies recently assigned the Manhattan area.
- 15—The first RCA Victor television receivers are expected to be made available to the American public this year, with a "sight-and-sound" table model retailing for about \$200, according to an announcement made by Joseph B. Elliott, vice-president in charge of RCA Victor's Home instrument activities.
- 18—WBKB, Chicago went off the air for about two weeks in order to switch to its newly assigned channel 4 from channel 3. Plans called for return to regular schedule Mar. 18. Shutdown was the first in five-year history of the Balaban & Katz tele outlet.
- 19—CBS and Zenith Radio Corp. announced plans for two color tele stations in Chicago, to be in operation by late spring or early summer.
- 20—Expansion of its radio and television activities was indicated in the report of completion of a deal by CBS involving acquisition of some five or six apartment buildings on East 53rd Street, New York City, estimated at a total value of over \$250,000.
- 21—Raymond E. Nelson, vice-president in charge of radio and television for the Charles M. Storm Agency, Inc., opened a 15-week course in "Television Advertising and Merchandising" at the City College of New York.
- 21—The FCC granted a waiver until July 1 of Rule 3.661, to all existing commercial tele stations, which requires each television station to render not less than two hours in any given broadcast day and a minimum of 28 hours program service per week.
- 25—According to a survey conducted by the New York Herald Tribune the majority of tele equipment manufacturers are planning to concentrate production on monochrome "in the belief that color video is still too far away to be commercially practical."
- 27—The Gillette Safety Razor Company was reported to have acquired the radio and tele rights for broadcast of the Louis-Conn fight in June for the sum of \$125,000.
- 28—Acting FCC Chairman, Charles Denny stated flatly that the "public will get its money's worth from the present television band, even though video's future lies upstairs."
- 28—Three-way bids for television rights to the Louis-Conn fight involved NBC, CBS and DuMont.

## MARCH

- 1—The District Commissioners approved a 350-foot tele transmitter for NBC on the grounds of the Wardman Park Hotel.

- 1—Acting FCC Chairman Charles Denny said that New York City would have to wait until other cities receive television service before hearings are held to fill its remaining channels.
- 4—All television stations throughout the U. S., with the exception of General Electric's WRGB, Schenectady, went off the air at midnight (March 1) for short periods to reconvert transmitters in accordance with new frequency allocations set down by the FCC last fall.
- 4—Frank Stanton, president of CBS revealed the findings of a "scientific study which tested the reactions of present television set owners, chosen at random from the N. Y. area after witnessing a color television broadcast." According to the study a "clear mandate" for color television was indicated.
- 5—One of the first demonstrations of television as a vehicle for presenting a sales and merchandising program to company officials was held last week by the RCA tube department, utilizing NBC's video facilities to present to top management executives of RCA Victor its plans for production, merchandising and advertising.
- 7—NBC issued a brochure outlining production procedure and establishing charges for the use of its television facilities in a direct invitation to advertising agencies and clients to actively participate in commercial video broadcasting.
- 7—First licenses to embody CBS ultra-high frequency color inventions in television receivers and studio apparatus were granted to the Westinghouse Electric Corp. Arrangements are on a patent royalty basis, extend for five years and provide for renewal.
- 7—Television's educational value was cited when the N. Y. Fire Dept. requested permission to use CBS' tele newsreel of a recent two-alarm \$100,000 fire that occurred on lower Broadway. Hailed as the "best film of actual firefighting" it will be used in training of rookies.
- 8—NBC, Bamberger and the Evening Star Broadcasting Co. were granted the Washington, D. C. television channels by the FCC.
- 11—WPTZ, Philadelphia, the Philco television station returned to the air on new Channel 3 (60-66 mc.)
- 12—NBC will return to daytime television on regularly scheduled basis with a three-times weekly program when WNBT resumes normal operations next month.
- 13—The British Broadcasting Corp. revealed its video plans at the closing session of the annual Radio Conference of the University of Oklahoma. Television was the paramount topic of the final session.
- 15—DuMont's television studio in the John Wanamaker Dept. Store in N. Y. will be officially opened on the evening of April 15, it was announced by Leonard F. Cramer, executive vice-president of Allen B. DuMont Laboratories, Inc.
- 20—George L. Moscovics, commercial manager of CBS television station WCBW, N. Y. declared at luncheon meeting of the Advertising Club that color television can be brought to the public within a year, "if the industry as a whole will get behind high-frequency color."
- 20—Television plans for coverage of the atomic bomb test in the Bikini Islands in May were announced by six major television companies; ABC; CBS (WCBW); NBC (WNBT); Balaban & Katz, Chicago (WBKB); Allen B. DuMont Laboratories (WABD) and Philco (WPTZ) Philadelphia.
- 22—Revolutionary television news coverage over long and short distances, from land, sea and air, is foreseen as one of many possibilities opened by two systems of airborne tele revealed for the first time in a joint Navy-RCA demonstration at the Naval Air Station at Anacosta, D. C. Classified by the Navy as "Block" and "Ring," the systems were developed during the war.
- 22—In the opinion of C. E. Nobles of the Westinghouse Electric Corp., Baltimore, Md., the time required for the "build-up" of cross country television network service can be reduced appreciably by acceptance of Stratovision, the proposed plan of broadcasting television programs from high flying planes.
- 22—Stating that he was "deeply shocked" by the FCC's decision in the Washington television grants, John Ballantyne, president of Philco Products requested that the company's application be withdrawn.
- 25—NBC sent out invitations to the special television broadcast of the opening of the UN session at Hunter College in New York City. Proceedings were picked up direct from the conference room and transmitted to receivers installed in Studio 8G in the RCA Building. Ben Grauer, NBC announcer handled the program from Hunter College.
- 26—Gimbel Bros., Philadelphia signed for a series of tele programs. It was the first department store in that city to sign and recently staged an intra-store tele demonstration with RCA.

26—The historic opening session of the United Nations Security Council in New York City's Hunter College was broadcast live on NBC television and filmed by ABC and CBS for airing on special programs.

29—First tele films of the UN Security Council opening at Hunter College in Philadelphia on WPTZ, the Philco video station, under the supervision of Paul Mowrey, manager of ABC's television department.

29—Television broadcasters mulled over the CPA's freeze on construction throughout the country. If the order is maintained it would mean that construction of some 1000 FM, AM and tele stations would be halted indefinitely.

**APRIL**

1—Members of the FCC were invited to attend a demonstration of color television at the N. Y. studios. Commission was shown color film and slides as contrasted to black-and-white video and learned first hand from Dr. Peter Goldmark strides made in the color field.

1—The FC accepted the request of Philco to withdraw from the Washington television field and at the same time issued a final order granting to fourth Washington tele channel to Allen B. DuMont Laboratories.

2—Eighteen members of the FCC, including acting-chairman Charles Denny, made a television inspection trip to Princeton, N. J. and N. Y. for the purpose of viewing developments in black-and-white and color television conducted by RCA and CBS.

3—Over a hundred "top executives of major advertisers and advertising agencies" have gone on record in favor of CBS color tele as opposed to black-and-white, Frank Stanton, CBS prexy, told members of the FCC at a color demonstration in N. Y.

3—A new idea in tuning mechanism for tele receivers was demonstrated by the Allen B. DuMont Laboratories at a joint meeting of the IRE and the Radio Club of America at the Engineers Club in N. Y., which will be standard equipment in all new DuMont tele sets.

4—There is "insufficient information" available to give an "okay" to color television, the FCC said in its annual report submitted to Congress.

5—NBC expects to have its Los Angeles television station in operation in the fall of 1947. A site has been acquired on Occidental Peak which is northwest of Mt. Wilson with an altitude of more than 5,800 feet.

9—A survey conducted by RADIO DAILY revealed that the television receiver outlook is brighter than at any time since the end of the war, with the first sets, mostly low-cost black-and-white models, scheduled to be on the market within a few months.

10—Possibility of utilizing a single antenna array for radiation of television video and sound as well as an FM broadcast carrier will be investigated by RCA under special authority granted by the FCC. Under the temporary grant, RCA will operate experimental tele station W3XEP simultaneously with a frequency modulation transmitter of the corporation.

11—Advertising agencies are very much aware of the possibilities of television as a new and powerful medium and are watching very closely its development into a major industry, Thomas D'A. Brophy, president of Kenyon & Eckhardt, Inc. said as the annual AAAA meeting got underway at the Waldorf-Astoria Hotel in N. Y.

11—Ira A. Hirschmann has acquired ownership of Metropolitan Television, Inc., including FM station WABF and experimental television station W2XMT. Hirschmann explained that the transaction is subject to approval of the FCC.

15—Opening of the DuMont television studios in the John Wanamaker New York store marked the establishment of the nation's first permanent commercial tele network. The network will link the DuMont stations in N. Y. and Washington, D. C.

17—Approval of the KDKA tele transmitter site near the University of Pittsburgh stadium by the city zoning board was announced.

19—Declaring that the United Nations is "not an employer" and that the question of the use of television cameras to take motion pictures for televising is purely one of American nature, involving labor union jurisdiction, Frank M. Begley, Security Officer for the UN informed CBS by letter that until the matter is decided in Washington, such cameras will not be used at the UN sessions at Hunter College, N. Y.

22—DuMont completed its first week of operations in the new Wanamaker studios over

the weekend, as hundreds of department store customers and visitors were provided their first experience of watching television in rehearsal and on the air.

- 22—General Electric announced that G.E. tele receivers in the N. Y. area may be converted to the newly-assigned frequencies for \$15 per set.
- 22—Tele history was made in Chicago when the opening game between the Chicago Cubs and the St. Louis Cardinals was televised by WBKB, the Balaban & Katz station, via a specially designed remote mobile unit pick-up.
- 23—NBC started work on a new television-FM antenna atop the Empire State Building in New York City. The new tower will be 61 feet in height, replacing the old structure, which was 35 feet. Erection of the tower will take from 10 days to 2 weeks.
- 25—Purchase of Navy Department's modern electron and television tube manufacturing plant at Lancaster, Pa. by the RCA Victor division of the Radio Corp. of America, was announced by Frank M. Folsom, RCA executive vice-president in charge of the division. The purchase price was \$4,362,500.
- 29—WCAU, CBS affiliate, Philadelphia has petitioned FCC for authority to withdraw its application for monochrome video station in favor of a new application for color. WCAU plans to demonstrate CBS color video in Philadelphia, using the coaxial cable to pipe telecasts from N. Y.
- 30—ABC received approval from the U. S. Forest Service for its new television-FM station site on the summit of Mt. Wilson, Calif.

## MAY

- 1—The Second Annual Radio and Business Conference sponsored by the City College School of Business got under way at the Hotel McAlpin. Discussions on television assumed an important spot on the agenda.
- 1—Television broadcast rights to the Louis-Conn fight at the Yankee Stadium, N. Y. and a deal whereby National Broadcasting Co. will also have exclusive tele rights to all Twentieth Century Sporting Club fight promotions for the year ending June 1, 1947 was announced jointly by John Royal, NBC vice-president in charge of television and Mike Jacobs, president of the Twentieth Century Sporting Club.
- 2—CBS completed plans for filming of the Kentucky Derby for airing on television over

WCBW. Bristol-Myers Co., in its debut in commercial video, will sponsor the films for Vitalis. Occasion will also mark the first time the historic turf classic will be filmed, especially for television.

- 2—NBC television resumed operation with a one hour show titled "Radio City Matinee," aired on the new channel 4 from 1 to 2 p.m.
- 7—Du Mont staged a dealer-showing of its first line of post-war teletests prior to a two-day public display at the company's television studio offices in New York City. Seven new video models were shown, six complete with FM, AM and phonograph and one smaller model which includes only AM radio.
- 8—At the 27th annual meeting of the board of directors of RCA David Sarnoff, president, outlined the company's policy on television, its prospects, as well as those other warborn patents and equipment RCA will handle in the future.
- 8—Allen B. DuMont Laboratories, Inc., gave a press and trade showing in N. Y. of their new line of "teletests." Models displayed ranged in price from \$600 to \$2,400 with four models priced at \$1,500 each.
- 9—First department store experimentation with regular television programming for the merchandising of their stocks came with Wanamaker's N. Y., using WABD, Du Mont station, for a half-hour program built around a sales pitch on pianos. Program was termed as "purely experimental."
- 15—The American-built Moscow Television Center, closed during the war, has resumed its operation.
- 15—FCC Commissioner E. K. Jett submitted informally a "startling" proposal for new color television standards to an industry committee studying the subject.
- 20—Nine video outlets from the Atlantic to Pacific were approved by the FCC without hearing. Seventy-nine applications are still on file.
- 20—Gracie Fields, British comedienne, will concentrate on television upon her return to work.
- 21—The FCC "denied" the petition of Allen B. DuMont Lab. that its connection with Paramount Pictures be dropped as an issue from the Los Angeles television hearing.
- 22—The CAA favors construction of tele towers in cities rather than in the open country, a sub-committee of the House District Committee was told by a CAA official.

23—Dr. Donald Horton, manager of the CBS Television Audience Research Institute, addressing an AMA convention in Boston said the advent of color will bring to the existing television picture "additional life and meaning" and will "make it possible to create an economically significant audience."

24—The American Broadcasting Co. authorized the expenditure of \$1,500,000 for the acquisition of a site for the building of a television station in Los Angeles.

24—WNBT and WCBW telecast crowds at the Pennsylvania and Grand Central Stations tied up by the nation-wide railroad strike.

**JUNE**

4—Strong competition got underway for the four remaining television channels in the New York City area as hearing opened before the FCC.

4—Paul Mowrey, head of tele operations for ABC, announced the appointment of LeRoy G. Phelps, veteran cameraman, as the television pool motion picture cinematographer to film the atomic bomb test off Bikini Atoll in July.

4—Sale of the new DuMont television receiving sets are expected to exceed \$7,000,000 by the end of 1946, and more than \$2,000,000 are on order by authorized dealers in the New York Area, following the first public showing, S. Levaur, sales manager, announced.

5—ABC President, Mark Woods, told FCC that his net planned to "plough" more than \$10,000,000 into the development of tele within the next three years.

5—NBC having exclusive television rights to the Louis-Conn fight, granted permission to the DuMont station in Washington and the Philco outlet in Philadelphia to carry this event. In New York, fight was televised over WNBT, NBC station.

10—A viewing audience of 300,000 was estimated by BBC for the re-opening of television transmissions following a war-caused shutdown since September 1939. Estimate showed that 15,000 receivers in Greater London picked up the program, compared to the pre-war figure of 23,000.

11—The National Labor Relations Board rejected an appeal made by the IATSE to have tele directors, assistant directors, assistant casting directors, floor managers,

vializers, animators, film cutters and supervisors of operations and studio attendants included in a single bargaining unit. The NLRB directed that television directors and assistant directors be combined into a separate collective bargaining election at the CBS tele studios.

12—A new micro-wave television relay transmitter, which generates less radio power than that required to operate a pencil flashlight, has been developed for field pickups and is now being used successfully by NBC. The new transmitter will be used at the Louis-Conn championship fight.

12—Public interest in television, normally referred to by set manufacturers and broadcasters as "tremendous" since the end of the war, has sharply soared to its highest peak because of the Louis-Conn fight.

12—CBS announced it had issued licenses to Bendix Radio Division, Bendix Aviation Corp., to manufacture color tele receivers for home use as well as transmitter equipment based on CBS' ultra high frequency color television invention.

12—The FCC granted a construction permit to the Allen B. DuMont Laboratories, Inc., for a 5 kw. television station in Washington, D. C. Request will be made for use of call letters WTTG.

27—Electronic manufacturers predicted that enough television transmitters will be available to broadcast customers by the end of this year to provide for their immediate demands at least.

**JULY**

1—The FCC cancelled the San Francisco television hearing. With only six applicants left, the Commission indicated grants for the city's six channels would be made without a hearing.

1—Rivalry sprung up between newsreel and television interests for the first showings of "Operation Crossroads." A Navy directive stated that films would be flown to the Anacostia Naval station for processing and distribution to both newsreel and television interests the same date and hour.

15—Cooperation between CBS and ABC resulted in a television seminar for returning veterans which provides an eight-week course covering all phases of the new art by both lectures and field work. Seminar is

under the direction of Worthington Miner, director of CBS Television.

- 19—Edgar Bergen and Patrick Cuning launched their joint television production enterprise in Los Angeles. Cuning is directing the production in which Bergen appears with new television characters. A new tele-miniature technique is being used and also a new type of television camera.
- 30—Gimble Brothers' first six video programs over WPTZ, Philco tele station Philadelphia has returned in an average sales return for the department store of about 2 per cent a week, it was announced by Ernest B. Loveman, television broadcasting head of Philco Corp.
- 31—A group of N. Y. television technicians have formed a company to manufacture a kit television set which is expected to sell for around \$100.

## AUGUST

- 1—Announcers on the NBC television station, WNBT, have put emphasis on "first time on any screen" in announcing television motion pictures of the second Bikini atom bomb blast and the Peace Conference films. This is the first open indication of rivalry between television and newsreels for credits on special coverage.
- 2—John R. Davis, Ford Company vice-president in charge of sales and advertising announced Ford's sponsorship of television events at Madison Square Garden in N. Y. over WCBW, CBS television station.
- 2—RCA will bring a demonstration of television to the Iowa State Fair, August 23-30. Station KRNT is building complete studio and control facilities to house the RCA equipment in the tent headquarters of International Harvester, Des Moines, Iowa.
- 13—Gillette's "Cavalcade of Sports." is interested in televising the coming World Series and will bring the matter before baseball's commissioner, A. B. "Happy" Chandler. Both CBS and NBC are set to go with video operations for the series.
- 13—General Electric's television station, WRGB will begin regular relay experimental tele-casting on Aug. 19, picking up NBC programs from N. Y. 5 days a week.
- 21—The Goodyear Tire & Rubber Co. will make its debut as a television client this fall with the sponsorship of the Army football games, starting Sept. 21.

26—Barney Balaban, president of Paramount Pictures, Inc. stated that "Canada can have television as soon as the U. S. if CBC gives us the green light."

30—The television exhibit at the Iowa State Fair, sponsored jointly by RCA-Victor, KRNT and ABC is credited with being the greatest box office attraction in the history of the Fair. The Fair hit an all-time attendance for any single day when 85,000 people attended. It was reported that 80 per cent of all questions were "where's the television show?"

## SEPTEMBER

- 3—First signs of a conflict involving telecasters and sports magnates were bared when it was learned that WCBW, CBS television station, had moved into Yankee Stadium for operation and that WNBT, NBC video outlet, apparently had moved out.
- 9—Plans for a Chicago Television Exposition next Spring are being formulated by the newly organized television broadcasters organization in Chicago. Capt. William Eddy, USNR, director of the B & K tele station, WBKB, was elected chairman of the new group at a meeting at the Union League Club. W. E. Guy, Graybar Electric district manager, presided.
- 11—Ford Motor Co. signed a contract with WABD, DuMont television outlet in N. Y. to telecast all home games of the Yankee professional football club of N. Y. at the Yankee Stadium. Complete 1946-47 schedules of the game will be televised. DuMont will use three new image orthicon cameras at the first Yankee game and thereafter will be equipped with five such fast pickup outfits.
- 17—The Don Lee Television System, granted a license last week by the FCC to do research in color video, has inaugurated a special three-year research project, it was announced in Hollywood by Harry R. Lubcke, Don Lee tele chief.
- 17—Television Productions, Inc., Paramount video subsidiary, withdrew its applications for 16 high frequency relay stations which had been planned.
- 20—Use of a movie trailer to herald a forthcoming production was seen for the first time on tele in N. Y. when WNBT presented a musical-pictorial sendoff for Columbia Pictures new Al Jolson production titled, "The Jolson Story."
- 30—In a petition filed with the FCC in Washington, CBS asked the Commission to adopt

standards for and to authorize commercial operation of color tele stations in the ultra high frequencies. The petition asks for a hearing at which CBS officials and others may testify on the proposals.

### OCTOBER

- 8—In cooperation with the N. Y. City Board of Education, CBS television station WCBW, announced plans for a new video educational series.
- 8—International video coverage by the use of films was given further impetus with the announcement that NBC had concluded a deal with BBC for an exchange of newsreels. First film exchange is expected to be coverage of the Queen Elizabeth's inaugural voyage from Southampton to N. Y. on Oct. 16.
- 8—First use of the coaxial cable which serves as a television link between N. Y. and Washington will be made by Baltimore on next Saturday when NBC television picks up the Navy-Duke football game from the Baltimore Municipal Stadium. The Baltimore pickup will be another step in the development of an east coast tele network.
- 9—Advance reservations for the TBA conference which opens tomorrow at the Waldorf-Astoria Hotel in N. Y. passed the 600 mark and indications are that it will probably attract more than 1500 broadcasters, agency executives, producers and advertisers.
- 10—The Columbia network's drive to put color television on a commercial basis was stepped up when the FCC ordered a hearing before the full Commission beginning Dec. 9. The network has petitioned the Commission to authorize operation of commercial video stations in the band 480 to 920 megacycles.
- 10—The opening of the AF of L convention in Chicago was filmed especially for television. Films were presented over WBKB, Balaban-Katz television station in Chicago. The event marked the first time proceedings of the AF of L were televised.
- 10—In the twelve weeks period ending August 2, 31,919 day guests toured the Du Mont John Wanamaker Studios. No count was made of evening guests.
- 11—Poul Roibourn, v.p. of Paramount Pictures, Inc. and chairman of the TBA awards committee presented the 1946 TBA Awards of Merit.
- 14—Entire October production of 1000 View-tone television receivers will go to dealers who have proved they can properly install video sets. Production of Viewtone tele sets has been increased by concentrating on one model.

15—NBC Television Dept. took motion pictures of President Truman when he made his meat and stobalization speech in Washington and flew the films to N. Y. Pictures were televised the following evening over WNBT.

- 15—First permanent use of television by major hotels in New York City will get under way this winter with the announcement by the Hotel New Yorker that six of its larger rooms will be equipped for service about Nov. 1.
- 18—RCA is busily installing 20 receiving sets in various points of vantage in the Palmer House, Chicago, to take care of the overflow from the convention hall at the forthcoming NAB Convention.
- 22—Detroit had what is believed to be its first actual television broadcast this week as one of the highlights of the 10-day Post-War Products Exhibition, which opened at Convention Hall. Television program was organized by WWJ and the Allen B. DuMont Laboratories.
- 24—President Truman, in his welcome address to the United Nations yesterday was televised by NBC's station WNBT with a battery of cameras spotted through the General Assembly hall and other points.
- 31—An all electronic-color television system was demonstrated publicly for the first time in history at the RCA Laboratories in Princeton, N. J. before a group of 70 newspaper and technical men. Demonstration was for the purpose of proving that the new development in radio science was flickerless and practical without the use of rotating disks or any other moving parts.

### NOVEMBER

- 7—Nearly one and one-quarter million dollars—estimated figure—worth of RCA Victor television receivers have been sold to consumers in New York City alone since the sets went on sale in five cities Nov. 4.
- 8—The Brooklyn Dodgers and CBS have concluded an agreement giving CBS the first exclusive, long term television rights to a major league team schedule.
- 11—A new coin-operated television receiver, which will be made available to the public at no cost for use in the home, was demonstrated last week for the first time by Trado, Inc., of Asbury Park, N. J.
- 15—ABC stepped up its television air time to nine and one-half hours this week, the heaviest video schedule in the company's history, Paul Mowrey, web tele director announced.



- 18—The first issuance of a rate card by WCBS-TV last Friday, revealed the variance in rates among New York's three television stations and pointed up the increasing competition among telecasters to lure sponsors into the new medium. All N. Y. telecasters, as well as the industry in general, have entirely separate rate policies and there is little basis for comparison.
- 19—Florida residents will get their first large-scale glimpse of television during the week of Nov. 25 with the opening of Miami's 50th Anniversary Exposition. Mammoth celebration, expected to attract a half million visitors will highlight a television exhibit under the joint auspices of WGBS and DuMont, N. Y.
- 26—United States listeners own a total of about 7000 television sets, according to figures compiled by the FCC.

**DECEMBER**

- 2—The J. L. Baird Co., London, will demonstrate not only color television, but three-dimensional color television in January, it was confirmed over the week-end. The Baird Co. is installing large-screen television in houses of the Capitol and Provincial New Theaters, Ltd., next year. Circuit comprises 14 theaters, six of which are newsreel houses.
- 5—Du Mont has been granted exclusive rights to televise the home games of the N. Y. Yankees Baseball Club in addition to the home games of the Football Yankees, it was announced jointly yesterday by Larry MacPhail, president of the baseball club; Daniel R. Topping, president of the Football Yankees, and Leonard F. Cramer, executive vice-president of Du Mont.
- 5—Bendix Radio Div. of Bendix Aviation Corp., displaying their first commercial model of color television receiver, got off to a bad start in a demonstration staged at their executive offices.
- 6—The use of Government motion pictures for television programs is seen as a definite possibility. Government agencies have been contacted by representatives of N. Y. television stations for the purpose of determining if Federal-made motion pictures can be used on their video programs. Also being studied is the feasibility of producing Government films with possible television use in mind.
- 6—The new charter for the British Broadcasting Corp. empowers it to produce motion pictures, but with the provision that such BBC-made films shall only be used for television.
- 9—Cuban citizens got their first look at television during a 13 day demonstration which opened last week under the auspices of the Compania Importadora de Lubricantes, which is installing a video station in Havana equipped by Dumont. Station is expected to be in operation within six months.
- 9—With color television versus black-and-white as the issue, leaders of the electronic industry gathered before the FCC in Washington today for a showdown verbal battle on whether or not video should proceed on the present black-and-white standards or give way to the immediate commercial development of color.
- 13—Television cameramen gave an example of spot news coverage yesterday when ABC and CBS technicians visited the scene of the tenement house explosion in New York City, made action shots and prepared them for showing last night. The television cover of the explosion was sponsored, on ABC tele, by U. S. Rubber Co.
- 16—RCA expects to produce a total of 160,000 black-and-white television receivers retailing at approximately \$65,000,000 next year, the FCC was told.
- 17—Twenty-five staff members of the FCC headed by Commissioners Paul A. Walker, Clifford J. Durr, Ewell K. Jett and Rosel H. Hyde journeyed from Washington to New York yesterday for a tour of television as a sequel to last week's hearing on CBS' application for a commercial color license.
- 23—The opening session of Congress will be televised for the first time in history on January 3rd in a co-operative broadcast by NBC, CBS and DuMont, it was announced over the weekend.
- 23—The FCC on Friday announced the granting of six commercials television applications for Los Angeles, with decision on the Don Lee network's application for the seventh channel in the area reserved.
- 24—The FCC announced yesterday that it has ordered a resumption of its color television hearing for the week beginning Jan. 27.
- 30—Plans for a new radio and television center in Boston, Mass. are included in a year-end report by Westinghouse Radio Stations, Inc., made public by Station Manager J. B. Conley.
- 31—Television covered the arrival of the New Year and the gaiety attached thereto in New York, Washington and Philadelphia as video stations aired programs in these cities up to and including the hours of midnight

# Commercial Television Programs—1946

Following is a list of commercial television programs on leading stations during the year ending Dec. 31, 1946. Listing is alphabetically by program title, and giving the sponsor, product, type of program, station and advertising agency handling the account. Abbreviations: L, Live Talent; F, Film.

| TITLE   | SPONSOR-PRODUCT  | TYPE                      | STATION      | ADVERTISING AGENCY      |
|---|--|---------------------------|--------------|-------------------------|
| All Eyes on Gimbels   | Gimbel Brothers<br>Dept. Store Mdse.                           |                           | WPTZ         | Direct                  |
| American Legion Film<br>Army Football Games   | American Legion<br>Goodyear Tire & Rubber Co.                  | Film<br>Sports (L)        | WABD<br>WNBT | ABC<br>N. W. Ayer & Son |
| Army-Navy Football Game   | Gillette Safety Razor Co.<br>Razor Blades                      | Sports (L)                | WNBT         | Maxon, Inc.             |
| Basketball, University of<br>Pennsylvania   | Atlantic Refining Co.  | Sports (L)                | WPTZ         | N. W. Ayer & Son        |
| Bathing Time For Baby<br>Boxing from Madison<br>Square Garden & St.<br>Nicholas Arena | Johnson & Johnson<br>Gillette Safety Razor Co.<br>Razor Blades | Cartoon (F)<br>Sports (L) | WBKB<br>WNBT | Direct<br>Maxon, Inc.   |
| Carving Beauty into<br>Plastics   | Rohm & Haas<br>Plexiglass                                      |                           | WABD         | Wanamakers              |
| Cavalcade of Sports   | Goodall Fabrics<br>Fabrics                                     | Sports (L)                | WPTZ         | Maxon, Inc.             |
| Chime Time  | Gillette Safety Razor Co.<br>Razor Blades                      |                           | WABD         | Donovan & Thomas        |
| Christmas Eve At Grace<br>Church  | A. E. Rittenhouse Co., Inc.<br>Chimes<br>Tires                 | Religious (L)             | WABD         | Campbell-Ewald Co.      |



| TITLE  | SPONSOR-PRODUCT                                   | TYPE                           | STATION      | ADVERTISING AGENCY    |
|--|---|--------------------------------|--------------|-----------------------|
| Doll House, The  | Wanamaker Doll Dept.                              |                                | WABD         | Wanamakers            |
| Don McNeill's Dinner Club                                    | Dolls<br>Marshall Field & Co.<br>Dept. Store Mdse | Variety (L)                    | WBBK         | Foote, Cone & Belding |
| DuMont Telesets  | DuMont Labs.<br>Television Sets                   |                                | WABD         | Buchanan              |
| Easter Parade  | Esmond Mills, Inc.<br>Bunny Blankets              | Film                           | WABD         | ABC                   |
| Educational Films  | Ford Motor Co.<br>Automobiles                     | Educational (F)                | WNBT         | J. Walter Thompson    |
| Elks Parade  | B.P.O.E.  | Film                           | WABD         | ABC                   |
| Esso Reporter  | Standard Oil Co. of N. J.<br>Esso                 | News (F)                       | WNBT         | Young & Rubicam       |
| Esso Television Reporter                                     | Standard Oil Co. of N. J.                         | News (F)                       | WPTZ         | Marschalk & Pratt     |
| Evening of Music   | Columbia Records<br>Records                       | Musical (L)                    | WABD         | Wanamakers            |
| Face To Face   | Standard Brands<br>Chase & Sanborn                | Quiz (L)                       | WNBT         | J. Walter Thompson    |
| Fair & Warner  | Westinghouse<br>Electric Comforter                | Commercial Skit (L)            | WABD         | McCann-Erickson       |
| Famous Jury Trials<br>Fit For A King                         | Chevrolet<br>Cars                                 | Dramatic (L)<br>Commercial (L) | WABD<br>WABD | ABC<br>Campbell-Ewald |
| Fitzgeralds, The   | Alexander's Dept. Store<br>Dept. Store Mdse.      | Interview (L)                  | WABD         | ABC                   |
| Football Games,<br>Washington                                | Goodyear<br>Tires                                 | Sports (L)                     | WABD         | N. W. Ayer            |
| Football Games,<br>Yankee Stadium                            | Ford Motor Co.<br>Cars                            | Sports (L)                     | WABD         | J. Walter Thompson    |
| Football, Sports at Madison Square Garden<br>(except boxing) | Ford Motor Co.<br>Automobiles                     | Sports (L)                     | WCBS-TV      | J. Walter Thompson    |
| Football, University of Pennsylvania                         | Atlantic Refining Co.                             | Sports (L)                     | WPTZ         | N. W. Ayer & Son      |



| TITLE            | SPONSOR-PRODUCT                           | TYPE                       | STATION | ADVERTISING AGENCY |
|------------------|---|----------------------------|---------|--------------------|
| Ladies Be Seated | B. T. Babbitt, Inc.<br>Babbitt's Cleanser | Audience Participation (L) | WA3D    | Duane Jones        |
| Let's Celebrate  | Borden Co.                                | Audience Participation (L) | WN8T    | Young & Rubicam    |
| Let's Dance      | Chevrolet                                 | Dancing Instruction (L)    | WABD    | Campbell-Ewald     |
| Let's Have Fun   | Mueller Prod.                             |                            | WABD    | Duane Jones        |
| Let's Have Fun   | Goldblatt Brothers                        |                            | WBKB    | Direct             |
| "Live" Time Spot | Elgin Watch Co.<br>Watches                | Time Signal (L)            | W3K3    | J. Walter Thompson |

**M**

|                                    |  |   |              |                        |
|------------------------------------|--|---|--------------|------------------------|
| Macy's Thanksgiving Day Parade     | R. H. Macy & Co.<br>Institutional  | Special Event (L)                       | WNBT         | Direct                 |
| Make Way For Music                 | Columbia Records<br>Records  | Musical (L)                             | WABD         | Wanamakers             |
| Magic Carpet, The                  | Alexander-Smith Carpet Co.<br>Carpets                                      | Children's Travlogue (L & F)            | WABD         | Anderson-Davis, Platte |
| Marriage ala Mode                  | Interchemical Corp.<br>Hoover Vacuum, Renuzit                              | Commercial Skit                         | WABD         | Wanamakers             |
| Master Hands                       | Chevrolet<br>Cars  |   | WABD         | ABC                    |
| Matinee For Youth                  | Sears, Roebuck & Co.<br>Mail Order Mdse.                                   | Variety (F)                             | WPTZ         | Benjamin Eshelman      |
| McCalls Fashions                   | McCall Corp.   | Fashion Show (L)                        | WABD         | Wanamakers             |
| McCracken Comes Through            | Ecko Products  |   | WABD         | Wanamakers             |
| Minneapolis Aquatennial Mrs. Fixit | U. S. Rubber Co.<br>Corning Glass Co.<br>Wearaver Aluminum,<br>Pyrex Glass | Film<br>Commercial<br>Demonstration (L) | WABD<br>WABD | ABC<br>Wanamakers      |
| Mummers Parade, The                | Sears, Roebuck & Co.<br>Mail Order Mdse.                                   | Special Event (L)                       | WPTZ         | Benjamin Eshelman      |
| Music For Christmas Night          |  | Musical (L)                             | WABD         | Wanamakers             |
| Musical Map                        |  |   | WABD         | Wanamakers             |

**N**

National Air Races  
 New Year's Eve at the  
 Stork Club  
 Northwestern Football  
 Games  
 U. S. Rubber Co.  
 Tires  
 Ford Motor Co.  
 Automobiles

ABC

WABD  
 WABD

Film  
 Remote (L)

Campbell-Ewald Co.

**P**

Piano & Organ Musicale  
 Play the Game  
 Pulitzer Show  
 J. W. Paid Music Dept.,  
 Barrett Textile Co.  
 Alexander's Dept. Store  
 Dept. Store Mdse.  
 Ben Pulitzer Creations  
 Ties

Wanamakers

WABD

Musical (L)  
 Charades, Audience  
 Participation (L)  
 Variety (L)

ABC

Loewi-Gamble

**R**

Road to Romance  
 Chevrolet  
 Cars

WABD

Campbell-Ewald Co.

**S**

Science Looks Forward  
 Scientific Film  
 Serving Thru Science  
 Sidewalk Tele Talks  
 Slip Cover Magic  
 Stump The Authors  
 U. S. Rubber Co.  
 Tires  
 U. S. Rubber Co.  
 Tires  
 U. S. Rubber Co.  
 Tires  
 Cuitter Cravats  
 Ties  
 Woman's Home Companion,  
 Cort China Alexander Dolls,  
 Socony Tavern Dinner Candles,  
 Asello Candles  
 Television Associates  
 Institutional

WABD

Campbell-Ewald Co.

Science, Educational (L)

WABD

Campbell-Ewald Co.

Science, Educational (L)

WABD

Campbell-Ewald Co.

Science, Educational (L)

WBKB

Direct

Educational (F)

WABD

Wanamakers

Slipcover Making (L)

WBKB

Direct

Educational (L)

| TITLE                         | SPONSOR-PRODUCT                      | TYPE                | STATION | ADVERTISING AGENCY |
|-------------------------------|--------------------------------------|---------------------|---------|--------------------|
| Tam O'Shanter Golf Tournament | U. S. Rubber Co.                     | Film                | WABD    | ABC                |
| Tele Chats                    | The Fair Store<br>Dept. Store Mdse.  | Educational (F)     | WBKB    | Direct             |
| Telequizcalls                 | Commonwealth Edison<br>Institutional | Quiz (L)            | WBKB    | Direct             |
| Tele-Varieties                | Bristol-Myers<br>Trushay, Vitails    | Variety (L)         | WPTZ    | Young & Rubicam    |
| Tele-Varieties                | Bristol-Myers<br>Trushay, Minit-Rub  | Variety (L)         | WNBT    | Young & Rubicam    |
| Television News               | Gulf Oil Co.<br>Gasoline             | News (L)            | WCBS-TV | Young & Rubicam    |
| Television Quarterback        | U. S. Rubber Co.<br>Institutional    | Sports (L)          | WNBT    | Campbell-Ewald     |
| Tenement House Fire           | U. S. Rubber Co.                     | Spot News           | WABD    | ABC                |
| Textron Telequiz              | Textron, Inc.                        | Spot News           | WABD    | Wanamakers         |
| This Will Put You To Sleep    | North Star Blankets<br>Blankets      | Commercial Skit (L) | WABD    | Wanamakers         |
| Time Signals                  | Gruen Watch Co.<br>Watches           | Time Signal (L)     | WCBS-TV | McCann-Erickson    |
| Time Signals                  | Bulova Watch Co.<br>Watches          | Time Signal (L)     | WCBS-TV | Biow Co.           |
| Time Signals                  | Elgin Watch Co.<br>Watches           | Time Signal (L)     | WCBS-TV | J. Walter Thompson |
| Time Signals                  | Waltham Watch Co.<br>Watches         | Time Signal (L)     | WNBT    | N. W. Ayer & Son   |
| Time Signals                  | Elgin National Watch<br>Watches      | Time Signal (L)     | WNBT    | J. Walter Thompson |
| Time Signals                  | Bulova Watch Co.<br>Watches          | Time Signal (L)     | WNBT    | Biow Co.           |
| Time Signals                  | Benrus Watch Co.<br>Watches          | Time Signal (L)     | WCBS-TV | Young & Rubicam    |
| Time Signals                  | Waltham Watch Co.<br>Watches         | Time Signals (L)    | WABD    | N. W. Ayer         |
| Time Signals                  | Elgin Watch Co.<br>Watches           | Time Signals (L)    | WABD    | J. Walter Thompson |

|              |  |                  |      |                        |
|--------------|--|------------------|------|------------------------|
| Time Signals | Longine-Wittnauer Watch Co.<br>Watches | Time Signals (L) | WABD | Arthur Rosenberg       |
| Time Signals | Teletrades, Inc.                       | Time Signals (L) | WABD | William Von Zehl & Co. |

**V**

|                                |  |          |      |                   |
|--------------------------------|--|----------|------|-------------------|
| Visi-Quiz                      | Sears, Roebuck & Co.<br>Mail Order Mdse.     | Quiz (L) | WPTZ | Benjamin Eshelman |
| Visi-Quiz                      | Sears, Roebuck & Co.<br>Mail Order Mdse.     | Quiz (L) | WNBT | Benjamin Eshelman |
| Voice of Firestone<br>Televeus | Firestone Tire & Rubber Co.<br>Institutional |          | WPTZ | Sweeney & James   |
| Voice of Firestone<br>Televeus | Firestone Tire & Rubber Co.<br>Institutional |          | WNBT | Sweeney & James   |

**W**

|  |  |                    |         |                               |
|--|--|--------------------|---------|-------------------------------|
| Weather Reports                        | Botany Worsted Mills<br>Textiles                                       | Weather Report (L) | WABD    | Silberstein-Goldsmith         |
| Weather Reports                        | Botany Worsted Mills<br>Textiles                                       | Weather Report (L) | WNBT    | Silberstein-Goldsmith         |
| Weather Reports                        | Borden Co.<br>Reid's Ice Cream   | Weather Report (L) | WCBS-TV | Doherty, Clifford & Shenfield |
| Weed No More                           | Sherwin-Williams Co.,<br>(Assoc. of Bulb Growers of Holland)<br>Tulips |                    | WABD    | Wanamakers                    |
| Wrestling Matches from<br>Rainbo Arena | ABC<br>Institutional   | Sports (L)         | WBKB    | None                          |
| Write Me a Love Scene                  | Manhattan Soap Co.<br>Sweetheart Soap                                  | Drama (L)          | WABD    | Duane-Jones                   |
| World In Your Home                     | RCA Victor   | Educational (F)    | WNBT    | None                          |

**Y**

|                   |   |                       |      |                    |
|-------------------|---|-----------------------|------|--------------------|
| Yes, Mr. Bingle   | Admiral Corp.<br>Flint Cutlery<br>Ecko Products | Commercial Skit (L)   | WABD | Earle Ludgin & Co. |
| You Are An Artist | Gulf Refining Co.<br>Gasoline                   | Art-Participation (L) | WNBT | Young & Rubicam    |



# TELEVISION BROADCASTING STATIONS

As of January 1, 1947

*The term "television broadcast station" means a station licensed for the transmission of transient visual images of moving or fixed objects for simultaneous reception and reproduction by the general public.*

## Commercial Television Broadcast Stations Licensed By The Federal Communications Commission

| Location            | Licensee                           | Call Letters | Channel No.<br>Old* New** | Power<br>Vis. Aural |
|---------------------|------------------------------------|--------------|---------------------------|---------------------|
| <b>ILLINOIS</b>     |                                    |              |                           |                     |
| Chicago             | Balaban & Katz Corp.               | WBKB         | 2 3 or 4                  | 4KW 2KW             |
| <b>NEW YORK</b>     |                                    |              |                           |                     |
| New York            | Columbia Broadcasting System, Inc. | WCBS-TV      | 2                         | 3KW 2.5KW           |
| New York            | Allen B. Dumont                    | WABD         | 4                         | 4KW 1KW             |
| New York            | National Broadcasting Co., Inc.    | WNBT         | 1 4                       | 5.2KW 2.2KW         |
| Schenectady         | General Electric Co.               | WRGB         | 3                         | 40KW 20KW           |
| <b>PENNSYLVANIA</b> |                                    |              |                           |                     |
| Philadelphia        | Philco Radio and Television Corp.  | WPTZ         | 3                         | 3KW 3KW             |

## Construction Permits Granted for Commercial Tele Stations

|                             |                                      |                          |                                 |  |
|-----------------------------|--------------------------------------|--------------------------|---------------------------------|--|
| <b>CALIFORNIA</b>           |                                      |                          |                                 |  |
| San Francisco               | The Chronicle Pub. Co.               | Channel #11, 198-204 mc; | Vis. 18.24 kw; Aur. 19.2 kw.    |  |
| <b>DISTRICT OF COLUMBIA</b> |                                      |                          |                                 |  |
| Washington                  | N. B. C.                             | Channel #4, 66-72 mc;    | Vis. 13.3 kw; Aur. 10 kw.       |  |
|                             | The Evening Star                     | Channel #7, 174-180 mc;  | Vis. 14.25 kw; Aur. 15.2 kw.    |  |
|                             | Bamberger Broadcasting Service, Inc. | Channel #9, 186-192 mc;  | Vis. 30.25 kw; Aur. 24.5 kw.    |  |
|                             | Allen B. Dumont Labs., Inc.          | Channel #5, 76-82 mc;    | Vis. 6.25 kw; Aur. 2.5 kw.      |  |
| <b>ILLINOIS</b>             |                                      |                          |                                 |  |
| Chicago                     | A. B. C., Inc.                       | Channel #7, 174-180 mc;  | Vis. 30 kw; Aur. 15 kw; 613 ft. |  |
|                             | N. B. C.                             | Channel #5, 76-82 mc;    | Vis. and Aur. power 21.8 kw.    |  |
|                             | Zenith Radio Corp.                   | Channel #2, 54-60 mc;    | Vis. and Aur. 4.5 kw.           |  |

● **OUTSTANDING CP'S FOR COMMERCIAL TV** ●

| <i>Location</i> | <i>Licensee</i>                     | <i>Channel</i>           | <i>Power<br/>Vis. Aural</i>     |
|-----------------|-------------------------------------|--------------------------|---------------------------------|
| <b>MARYLAND</b> |                                     |                          |                                 |
| Baltimore       | The A. S. Abell Co.                 | Channel #2, 54-60 mc;    | Vis. and Aur. power<br>17.1 kw. |
|                 | Hearst Radio, Inc.                  | Channel #11, 198-204 mc; | Vis. 14.4 kw; Aur.<br>7.3 kw.   |
|                 | Radio-Television of Balto.,<br>Inc. | Channel #13, 210-216 mc; | Vis. 31.65 kw;<br>Aur. 20 kw.   |

**MASSACHUSETTS**

|         |                   |                       |                                   |
|---------|-------------------|-----------------------|-----------------------------------|
| Waltham | Raytheon Mfg. Co. | Channel #2, 54-60 mc; | Vis. 146.08 kw; Aur.<br>30.70 kw. |
|---------|-------------------|-----------------------|-----------------------------------|

**MICHIGAN**

|         |                        |                       |                            |
|---------|------------------------|-----------------------|----------------------------|
| Detroit | King Trendle B/cg Co.  | Channel #5, 76-82 mc; | Vis. 16 kw; Aur. 14<br>kw. |
|         | The Evening News Assn. | Channel #4, 66-72 mc; | Vis. 17.1; Aur. 7.7<br>kw. |

**MISSOURI**

|           |                       |                       |                |
|-----------|-----------------------|-----------------------|----------------|
| St. Louis | The Pulitzer Pub. Co. | Channel #4, 76-82 mc; | Vis. 18.15 kw. |
|-----------|-----------------------|-----------------------|----------------|

**MINNESOTA**

|          |            |                       |                                 |
|----------|------------|-----------------------|---------------------------------|
| St. Paul | KSTP, Inc. | Channel #5, 76-82 mc; | Vis. 13.68 kw; Aur.<br>6.48 kw. |
|----------|------------|-----------------------|---------------------------------|

**NEW MEXICO**

|             |                      |                       |                           |
|-------------|----------------------|-----------------------|---------------------------|
| Albuquerque | Albuquerque B/cg Co. | Channel #2, 54.60 mc; | Vis. 15 kw; Aur. 8<br>kw. |
|-------------|----------------------|-----------------------|---------------------------|

**NEW YORK**

|         |            |                       |                                       |
|---------|------------|-----------------------|---------------------------------------|
| Buffalo | WBEN, Inc. | Channel #4, 66-72 mc; | Vis. 14.4 kw; Aur.<br>7.2 kw; 378 ft. |
|---------|------------|-----------------------|---------------------------------------|

**OHIO**

|           |                            |                       |                              |
|-----------|----------------------------|-----------------------|------------------------------|
| Cleveland | N. B. C.                   | Channel #4, 66-72 mc; | Vis. 19 kw; Aur.<br>19.5 kw. |
|           | Scripps-Howard Radio, Inc. | Channel #5, 76-82 mc; | Vis. 40 kw; Aur. 37.4<br>kw. |

**OREGON**

|          |                    |                       |                              |
|----------|--------------------|-----------------------|------------------------------|
| Portland | Oregonian Pub. Co. | Channel #6, 78-84 mc; | Vis. 10 kw; Aur. 11.2<br>kw. |
|----------|--------------------|-----------------------|------------------------------|

**PENNSYLVANIA**

|              |   |                          |                                   |
|--------------|---|--------------------------|-----------------------------------|
| Johnstown    | WJAC, Inc.  | Channel #13, 210-216 mc; | Vis. 9 kw; Aur.<br>6.8; 971 feet. |
| Philadelphia | The Phila. Inquirer, a Divi-<br>sion of Triangle Pubs.,<br>Inc. | Channel #6, 82-86 mc;    | Vis. 18.1 kw; Aur.<br>9.3 kw.     |

● **OUTSTANDING CP'S FOR COMMERCIAL TV** ●

|                 |                 |                |                             |
|-----------------|-----------------|----------------|-----------------------------|
| <i>Location</i> | <i>Licensee</i> | <i>Channel</i> | <i>Power<br/>Vis. Aural</i> |
|-----------------|-----------------|----------------|-----------------------------|

**RHODE ISLAND**

|            |                |                          |                      |
|------------|----------------|--------------------------|----------------------|
| Providence | The Outlet Co. | Channel #11, 198-204 mc; | Vis. and Aur. 50 kw. |
|------------|----------------|--------------------------|----------------------|

**TEXAS**

|        |                  |                       |  |
|--------|------------------|-----------------------|--|
| Dallas | KRLD Radio Corp. | Channel #4, 66-72 mc; | Vis. 46 kw; Aur. to be determined; 519 ft. |
|--------|------------------|-----------------------|--|

|            |                    |                       |                        |
|------------|--------------------|-----------------------|------------------------|
| Fort Worth | Carter Pubs., Inc. | Channel #5, 76-82 mc; | Vis. and Aur. 30.4 kw. |
|------------|--------------------|-----------------------|------------------------|

**UTAH**

|                |                          |                       |                          |
|----------------|--------------------------|-----------------------|--------------------------|
| Salt Lake City | Intermountain B/cg Corp. | Channel #2, 54-60 mc; | Vis. 13.2 kw; Aur. 7 kw. |
|----------------|--------------------------|-----------------------|--------------------------|

**VIRGINIA**

|          |                       |                       |                             |
|----------|-----------------------|-----------------------|-----------------------------|
| Richmond | Havens & Martin, Inc. | Channel #3, 60-66 mc; | Vis. 12.16 kw; Aur. 6.4 kw. |
|----------|-----------------------|-----------------------|-----------------------------|

\* Old Channel means one of the 18 channels assigned to commercial television stations prior to the Commission's allocation report of June 27, 1945.  
 \*\*New Channel means one of the 13 channels finally assigned to commercial television stations by the Commission's allocation report of June 27, 1945.

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IN N. Y.-LOS ANGELES-CHICAGO-  
WASHINGTON PLEASE TURN TO  
  
PAGES 100-107

# COMMERCIAL TELEVISION STATIONS

PERSONNEL • FACILITIES

## W B K B—W 9 X B K

CHICAGO  
CHANNEL 2

Frequency.....67.25 mc.: 71.75 mc.  
Power ..... 4 Kw.  
Effective Signal Radiated.....796  
Owned-Operated By.....Balaban & Katz Corp.  
Business Address.....190 N. State St.  
Phone Number.....Franklin 6446  
Transmitter & Antenna Location.190 N. State St.  
Time on the Air.....1-3 p.m.: 7:15-10 p.m.  
News Service .....AP  
Transcription Service.....World Broadcasting  
Membership .....TBA Active

### Personnel

Director of Television.....William C. Eddy  
Promotion Manager.....Reginald Werrenrath  
Purchasing Agent.....George W. Thomas  
Program Manager.....A. Warren Jones  
Publicity Director.....Helen Bolstad  
Program Director.....A. Warren Jones  
Production Manager.....Lewis D. Gomavitz  
Chief Announcer.....Jack Gibney  
Musical Director.....Jeanette Levin  
Chief Engineer.....A. H. Brolly

### FACILITIES

One studio, three camera chains (two for live talent and one for film), one mobile unit for out-door pickups (not being used for the duration).

## W 9 X Z V—(W T Z R)

W 9 X Z C

CHICAGO  
CHANNEL 1  
(Experimental)

Frequency: W9XZV, 54-60 mc.; W9XZC, 512-528 mc. Power: Sight and Sound, 1000 Watts  
Effective Radiated Signal.....1270  
Owned-Operated By.....Zenith Radio Corp.  
Business-Studio Address....6001 Dickens Ave.  
Phone Number.....Berkshire 7500  
Transmitter & Antenna Location..6001 Dickens Ave.  
Time on the Air.....Unlimited license

### Personnel

President-General Mgr. .... E. F. McDonald, Jr.  
Station Manager.....J. E. Brown

## W 6 X A O—(K T S L)

LOS ANGELES (HOLLYWOOD)—  
EST. 1931  
CHANNEL 2

Frequency .....54-60 mc.: Power: 4 kw.  
Effective Signal Radiated .....5600  
Owned-Operated By.....Don Lee Broadcasting System  
Business Address .....5515 Melrose Ave.  
Phone Number .....Hollywood 8255  
Transmitter & Antenna Location....3800 Mount Lee Drive  
Time on the Air.....Mondays: 6:30 p.m. to 10:00 p.m.; Tuesdays and Thursdays: 2:30 p.m. to 3:30 p.m.  
News Service.....AP, NS, UP  
Transcription Service .....World  
Representative .....John Blair  
Membership .....NAB, TBA

### Personnel

President .....Thomas S. Lee  
Executive Vice-President and General Manager .....Lewis Allen Weiss  
Executive Vice-President and Assistant General Manager .....Willet H. Brown  
Director of Television.....Harry R. Lubcke  
Program Director .....Jack Stewart  
Production Manager .....Ed Kemble  
Publicity Relations Director.....Mark Finley  
Chief Announcer .....Herb Twiss  
Stage Director.....Ted Driscoll  
Chief Engineer .....Harold Jury  
Record MC.....John Courcier  
Film Director.....Marjorie Campbell

### FACILITIES

SYSTEM IN USE: 525 line 30-60 frame F.C.C., Standard, all electronic cathode-ray. Horizontal Polarization. Three Studio Cameras and film equipment. Two cameras of Orthicon type. Complete 100 ft. square two story television building housing one 100 ft. x 60 ft. x 30 ft.

television stage, one 46 ft. x 26 ft. x 16 ft., stage, monitor, film, transmitter, makeup, and lounge rooms, offices, shop, transformer vaults, etc. Three hundred foot tower, antenna elevation 2000 ft.

The Pasadena Community Playhouse and other organizations have presented plays such as Ibsen's "Master Builder," "Alice in Wonderland" and others.

## K T L A

### HOLLYWOOD

EST. 1942

(Paramount Studio Lot)  
CHANNEL 5

Frequency.....76-82 mc.; Power: Visual  
4 Kw; Oral 1 Kw.  
Owned-Operated By...Television Productions,  
Inc..  
Business Address.....5451 Marathon St.,  
Hollywood 38  
Phone Number.....Hollywood 6363  
Transmitter and Antenna Location..Mount Alca  
Time on the Air.....Unlimited  
News Service.....UP  
Transcription Service.....World

### Personnel

President.....Paul Raibourn  
West Coast Dir.-Station Mgr...Klaus Landsberg  
Sales Mgr.-Chief Announcer..Keith Hetherington  
Musical Dir.....Rex Kepple  
Engr. Supervisor.....Raymond M. Moore

### FACILITIES

Equipment includes complete apparatus for studio as well as field operation. Cameras and transmitters were built by Allen B. DuMont Laboratories, Inc. and many additional units, including electronic special-effect equipment, were designed and built by Television Productions, Inc.

## W A B D

NEW YORK CITY

EST. 1943

CHANNEL 5

Frequency.....76-82 mc.  
Power.....Sight, 4 kw.; Sound, 1 1/4 kw.  
Owned-Operated By.....Allen B. Du Mont  
Laboratories, Inc.  
Business-Studio Address...515 Madison Ave.  
Studios...John Wanamaker, 9th St. & E'way  
Phone Number.....PLaza 3-9800  
Transmitter and Antenna Location.....515  
Madison Ave.  
Time on the Air.....3 to 5 p.m.; 8 to 9:30  
p.m. Monday thru Friday.  
News Service.....INS

### Personnel

President.....Dr. Allen B. Du Mont  
General Manager of Television  
Division.....Ernest A. Mark  
Station Manager.....Samuel H. Cuff  
Transmitting Equipment Sales  
Mgr. ....H. E. Taylor, Jr.  
Director of Commercial  
Operations.....Louis A. Sposa  
Manager of Station Program  
Dept. ....Robert Emery  
Publicity Director.....John McKay  
Chief Announcer.....Dennis James  
Chief Engineer.....Dr. T. T. Goldsmith, Jr.

### FACILITIES

The 160-foot tower of WABD atop a 42-story building raises the antenna to 650 feet above sea level. Covering a service range of 35 to 50 miles, the station has regular viewers as distant as 100 miles. It is completely equipped by Du Mont Laboratories. WABD has two studios for live talent shows as well as film-projection facilities. It operates on a commercial license.

## W C B S\* — T V

NEW YORK CITY

CHANNEL 2

Frequency.....54-60 mc.; Sight, 4 kw;  
Sound, 3.5 kw.  
Owned-Operated By...Columbia Broadcasting  
System  
Business Address.....15 Vanderbilt Ave.  
Phone Number.....Murray Hill 6-5340  
Studio Address.....15 Vanderbilt Ave.  
Transmitter & Antenna Location.....Chrysler  
Tower  
Time on the Air.....Life studio shows: Thurs-  
days; Saturdays and Sundays. Remote and  
mobile pickups: On all 7 days according to  
availabilities.  
News Service.....AP  
Transcription Service.....Associated  
Membership.....NAB

### Personnel

V.P. in Charge of  
Television.....Lawrence W. Lowman  
Director of Television..Worthington C. Miner  
Director of Plans Division.....Leonard Hole  
Commercial Manager...George L. Moskovics  
Actg. Dir. of Tele. Programs..Benj. F. Feiner, Jr.  
Director of Operations...Merritt H. Coleman  
Manager of Technical Operations..Paul Wittlig  
Manager of Production.....Charles Holden  
Manager of Press Information..James J. Kane  
Art Director.....James McNaughton  
Dir. of News — Special Events..Robert Bendick  
Director of Sports.....Robert R. Edge

\* Formerly WCBW

**W M J T**

MILWAUKEE  
CHANNEL 3  
(C. P. Only)

Owned-Operated By.....The Journal Co.  
Business Address.....333 W. State St.  
Studio Address.....720 East Capitol Drive  
Phone Number.....Marquette 6000  
Transmitter & Antenna Location.....720 East  
Capitol Drive  
Newspaper Affiliation.....The Journal Co.

**W N B T**  
NEW YORK CITY  
EST. 1941  
CHANNEL 4

Frequency.....66-72 mc.  
Power Sight, 5000 Watts; Sound, 3000 Watts  
Effective Signal Radiated.....1800  
Owned-Operated By.....National Broadcast-  
ing Co.  
Business Address.....30 Rockefeller Plaza  
Phone Number.....Circle 7-8300  
Studio Address.....30 Rockefeller Plaza  
Transmitter & Antenna Location.....Empire  
State Bldg. Tower  
Time on the Air Approx. 20-34 hours per week

**Personnel**

NBC President.....Neil Trammell  
NBC Vice-President, in  
Charge of Television.....John F. Royal  
NBC V.-P. & Chief Engineer....O. B. Hanson  
Manager of Television Dept...Noran E. Kersta  
Mgr. NBC Tele Promotion...Charlotte F. Stern  
Executive Producer.....Warren Wade  
Mgr. NBC Press Dept.....Sydney H. Eiges  
Television Press Editor.....Allan H. Kalmus  
Eastern Sales Manager.....Reynold R. Kraft

**W P T Z**

PHILADELPHIA  
CHANNEL 3

Frequency.....60-66 mc.;  
Sight, 4 Kw.; Sound, 4 Kw.  
Effective Signal Radiated...Approximately 335  
Owned-Operated By.....Philco  
Television Broadcasting Corp.  
Business Address.....1800 Architects  
Bldg., 17th and Sansom Sts.  
Phone Number.....Locust 7-7136  
Transmitter & Antenna Location.....1300 E.  
Mermaid Ave., Wyndmoor, Philadelphia, Pa.  
Transcription Service.....Lang-Worth

**Personnel**

Vice President & Gen. Mgr.....E. B. Loveman  
Business Manager.....Rolland V. Tooke  
Program Director.....Ernest Walling  
Chief Engineer.....Raymond J. Bowley

**W R G B**

SCHENECTADY, N. Y.  
CHANNEL 4

Frequency.....66-72 mc.; Power: Visual,  
40,000 Watts, Oral, 20,000 Watts  
Owned-Operated By.....General Electric Co.  
Effective Signal Radiated.....3100  
Business Address.....60 Washington Ave.  
Phone Number.....4-2211, Ext. 4926  
Transmitter & Antenna Location....New Scot-  
land, N. Y.  
Time on the Air.....Average Seven Hours  
Weekly locally; relay average 10 hours  
weekly from N. Y.  
News Service.....AP, UP  
Transcription Service...Thesaurus, Lang-Worth  
Membership.....NAB

**Personnel**

Vice President & Manager of  
Broadcasting.....R. S. Peare  
Asst. Manager of Broadcasting...B. J. Rowan  
Station Manager.....G. E. Markham  
Assistant to the Station  
Manager.....R. W. Welpott  
Supervisor, Station Sales &  
Promotion.....A. G. McDonald  
Supervisor of Production....Helen T. Rhodes  
Supervisor of Scripts.....T. B. Beebe  
Supervisor of News.....W. T. Meenam  
Supervisor of Music.....A. O. Coggeshall  
Engineer.....W. J. Purcell

**FACILITIES**

Technical facilities of Station WRGB include a direct pickup studio for live talent productions, located at 60 Washington Ave., Schenectady. It is fitted with five camera channels. A film scanning room has two cameras and three motion picture projectors—two for 35 mm. and one for 16 mm. films. Film slide, lantern slide and projectors of small opaque pictures and objects are also available.

Signals from the WRGB transmitter, located in the Helderberg mountains, New Scotland, N. Y., near Schenectady, are received over a service area with a radius of approximately 50 miles, which includes the Troy-Albany-Schenectady area.

WRGB claims the first television relay station, picking up programs from NBC in New York City, 129 miles away, and relaying them to the Capitol district.

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