TELEVISION



Commercial Stations

Personnel

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1944 News Highlights

Allocation Proposals

Television Broadcasting Association



You can call on a wide range of experience in the Farnsworth engineering staff. This outstanding organization includes specialists in television . . . FM and AM reception and trans-

mission . . . Radar . . . phonograph reproduction . . . acoustics

... record-changers.

War keeps these men busy today. Tomorrow they will be the background for Farnsworth radio, phonograph and television equipment... drawing upon a rich experience of more than 19 years in electronics research and development... a guarantee of leadership.

... And they will welcome your questions regarding all phases of radio and television transmission and reception. You'll find Farnsworth engineers leading in more and more fields ... Farnsworth experience and Farnsworth equipment belong in your plans for the future.

• WRITE FOR COPIES of "The Story of Electronic Television"—a non-technical brochure for which you'll have many uses.

FARNSWORTH

TELEVISION • RADIO • PHONOGRAPHS

Farnsworth Television & Radio Corporation, Fort Wayne 1, Indiana • Farnsworth Radio and Television Transmitters and Receivers • Aircraft Radio Equipment • Farnsworth Television Tubes • The Farnsworth Phonograph-Radio • The Capehart, the Capehart-Panamuse

TELEVISION MOVES AHEAD

By Frank Burke Editor, RADIO DAILY

PUBLIC acceptance of television as a post-war sight and sound media is assured based on the 1944 developments

in the video field.

Notable among the past year's video achievements were the formation of the Television Broadcasters Association in January; the Television Seminar, conducted by the Radio Executives Club of New York during May and June; the FCC's allocations hearing in Washington and controversial issues growing out of spectrum allocations.

Controversial Issues

The controversial side of television centered around whether it should remain "downstairs" or go "upstairs." Most of the spectrum difficulties were ironed out with the FCC's preliminary allocations report which took cognizance of both schools of thought in the allocation of channels. Commercially television is allowed to remain roughly where it is in the lower spectrum with provision made in the higher spectrum for experimental television in color and higher definition monochrome pictures.

Production Problems

Indications that production is one of television's paramount problems was gained during the Television Seminar conducted last summer by the Radio Executives club and discussed at subsequent meetings of video groups in New York, Chicago and Los Angeles. Two schools of thought on production have voiced opinions. One suggests that films, especially produced for video, will constitute the bulk of sight and sound entertainment fare when television gets in stride in the postwar period. Another group argues that film programming will grow monotonous and "live" programs based news and sports events will constitute much of the programming in the early days of commercial tele development.

Right now television stations in New York, Chicago and on the west coast are experimenting in production with a view of being prepared when television is launched on a large scale. Some radio programs such as "The Missus Goes A Shopping," "Ladies Be Seated" have been given successful tryouts in New York together with news commentators, puppet shows and fashion productions. On the west coast films have been used successfully with "live" talent in the presenting of programs. The movies are used as background and for full 15 minute and half hour shows.

Another interesting phase of experimental programming is the surveys being conducted among television set owners on the type of programs they regard as the best video entertainment. Stations in New York have contacted approximately 5,000 television set owners on the Eastern seaboard and in Chicago questionnaires have been mailed to tele set owners in that area.

TBA's First Conference

Formation of the TBA in January of 1944 and the first national conference of the organization in December was another important development of the past year. The conference attracted 700 registrants to the Hotel Commodore in New York with broadcasters, equipment manufacturers, advertising agency executives and others interested in video participating. One of the highlights of the meeting was the presentation of 12 awards to leaders in the video field for services rendered during 1944.

Television covered the Republican and Democratic national conventions in Chicago in June and special films of these conventions were telecast by New York stations and a network including Philadelphia, New York, and Schenectady. Later the linking of New York, Philadelphia and Schenectady stations were heralded in the press as the nation's first

television network.

Chronology Presented

Strides made by television during the past year are chronologically listed month by month in this issue of the RADIO ANNUAL. Recapitulation of these events is recreating the dramatic story of television's progress during 1944.



CHAIN television is here! With the recent dedication of the new Philco Relay Transmitter at Mt. Rose, N. J., the first Television Network, linking Philadelphia, New York and Schenectady, is in actual operation today. Now Philadelphians enjoy clear reception of programs from New York through their local Philco television station. Thus the first step has been taken through which millions will eventually witness events that take place thousands of miles away . . . by television.

HOW PHILCO RESEARCH SPEEDS THE ADVANCE OF TELEVISION

This first television network is an example of how Philo research is working to establish transmission principles which can extend chain television broadcasting from coast to coast. At the same

time, Philco research is improving the clarity, sharpness and detail of the television picture... so that future television sets will have the greatest possible sales appeal. Thus in two ways... by helping to broaden the market for television, and by designing a more saleable product for that market... Philco leads toward the goal of television as tomorrow's "billion dollar industry."

Radio Hall of Fame Orchestra and Chorus. Tune in Sundays, 6 P.M., E.W.T., Blue Network.

PHILCO

FAMOUS FOR QUALITY THE WORLD OVER

FILM OUTLOOK IN TELEVISION

By RALPH B. AUSTRIAN

Executive Vice-President, RKO Television Corp.

W/ILL most post-war television programs be live-talent or will they be filmed? This question has been asked ten thousand times this past year. I believe that the most suitable type of television program as they are evolved through experience, will be far different in character from the feature motion pictures created in Hollywood for theater exhibition. In the evolving of such programs, however, motion picture technique will play a greater part than existing radio or stage techniques and the use of film will be infinitely more important in television broadcasting than the electrical transcription disc is today in radio. In short. I believe that the majority of programs will be on film.

No "Shackles"

The use of the motion picture for the presentation of a television program immediately frees the writer, director and producer from the shackles of the live stage. A television program using live talent naturally faces many of the same restrictions that limit a stage production. All action at any given time is on a single set, and if the action is continuous, the players are held to a single costume. Offstage action can only be referred to and not shown, unless an intermission is declared for a shift of scene and a change of costumes. But with television there can be no between-theacts intermission. An intermission on a television program — and its audience would promptly dial to another station. True, a system of revolving stage sets, multiple cameras and quick costume changes might be employed, but the technical complications would be heartbreaking. At best, it would permit only a very few locale changes, but would continue to impose a multitude of restrictions on both writer and producer. No reverse shots or complicated angle shots-no shots from other sets, unless there are three more cameras at least on each set. A fundamental of television as in movies is constant scene change and camera movement. The public is accustomed to it and will demand it. I want to see a typical drawing room scene with four or five people—lit so they may move around freely and remain perfectly lit at all times.

Handicaps Removed

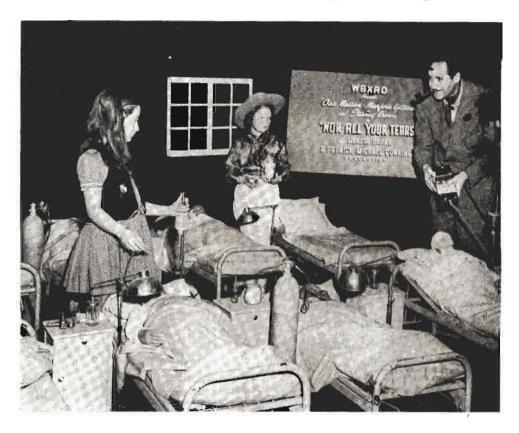
All of these program handicaps and restrictions, however, are immediately removed when it is a film program. For example, should the script call for an authentic street scene in Calcutta or Miami, a blizzard in Alaska, or a storm at sea, it would be available from the extensive film libraries maintained by RKO in Hollywood or Pathe News in New York. The players called for in the script could perform against the background of such a scene in such a natural manner that to the television viewer it would all appear to be taken on location. When film is used, rather than live talent, this and hundreds of other proven motion picture devices can be employed to give the television program producer practically limitless freedom of action. There is no substitute for the cutting room and a pair of sharp scissors.

An objection to programs on film is that they do not have the sense of "immediacy" that live talent has. I don't think that is true except, of course, in the case of sporting events—spot news—fires—floods, etc. There's no one who appreciates the live performance provided by the legitimate stage any more than I do. There's something about sitting in a theater watching a good play performed by capable actors and actresses that has no substitute; but if you were to put cameras in that theater and watch those actors and actresses from a distance, it is then nothing more than a motion picture. It loses the personal magnetism, the feeling of live flesh and blood—that thing known as "Theater."

Immediacy Theory

Here is another reason why I cannot agree to the theory of immediacy. Every day as I come to my office which is in the same building as the Radio City Music Hall, I see literally hundreds of

TELEVISION



Patrick Michael Cunning TELEVISION PRODUCTIONS

"Since 1939 America's Leading Independent Television Producing Organization"

THE HOME OF PACKAGE TELESERIALS

STAGE 8

6530 SUNSET BLVD.

IN HOLLYWOOD, CALIF.

people on line in all kinds of weather patiently awaiting to go inside and see a picture which they know was completed several months ago. The people know the middle scenes were shot first and the first scenes shot last. They know each scene was taken and retaken. Yet they line up to get it. Why? It's only a cold, moving and talking shadow—but the story and the actors and actresses will make them laugh or cry or forget thmeselves for a few fleeting hours.

It has been said many times: The high cost of programs on film is an impossible obstacle. I do not believe that programs in order to be entertaining and good, necessarily have to be expensive beyond reason. Some radio programs today cost from \$10,000 to \$25,000 for a 30-minute period. That's a range of from \$300 to \$600 a minute. We could supply film shows for that much and less—and, of

course, more.

Knotty Problems

One of the knotty little economic problems of television which keeps occupying the attention of prospective station operators, especially the so-called originating stations for networks, is the vast amount of equipment and personnel needed to put a comparatively few hours of live talent programs on the air. There are a lot of people who say that television will operate only between four and six hours a day. Others point knowingly to a 24-hour-around-the-clock schedule. Let's take for our example a 12-hour day although even that might be some distance in the future. What would be required to put on 12 hours of programs a day if they were all live talent programs? One station operator who has been on the air for several years and who has had the unique experience of running two studios has estimated that it would take 15 studios to put on the air 12 hours of live talent program material, allowing only four hours' rehearsal time to one hour air time. Believe me when I tell you, however, that many 15-minute and half-hour live talent shows require as much as a week of rehearsal. Five of these studios would be very large studios about 3,000 square feet apiece; five would be medium size, around 2,000 square feet, and five small-around 1,300 square feet. Nobody knows just how many technicians, property men, electricians, directors, cameramen, grips and other laborers would be needed for these 15 studios. With the most careful method of staggering all help (union permitting) there may be as many as 200 men needed.

Rehearsal Angles

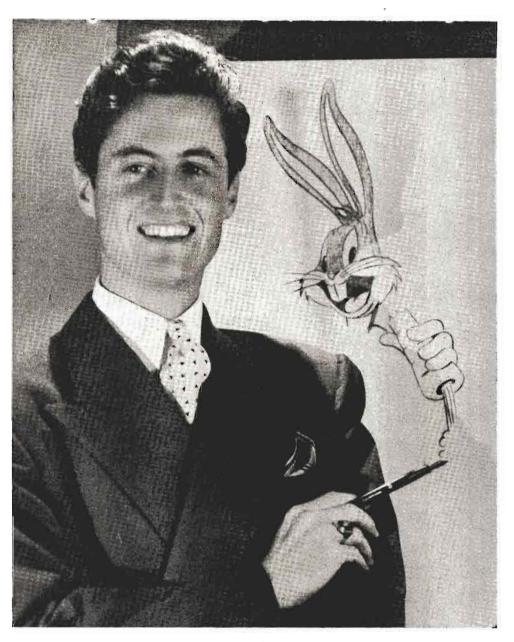
When a program goes into rehearsal, a production crew is assigned to it and that crew stays with it all during the rehearsal time and is the same crew that will eventually put the show on the air. So you can see that every show in rehearsal will require its own crew.

In a radio station today at the end of a program there is not very much to be done in the studio to get ready for the next show but when a live television show is over, the crew has to come in, strike the set, properties and lights, bring in the new set, dress it, light it, and you just don't do that in 30 minutes. How very simple it is going to be when programs are provided on film. A large motion picture company can arrange with the advertising agency for whom it functions to supply identical prints of a program to any number of television stations throughout the country or, for that matter, the world. It would do this precisely as it supplies its regular mo-tion picture film, on a "day and date" basis. This would be done through its nationwide network of film exchanges. No excitement, no worry, no scurry just as simple as loading a home movie.

Commercial Opportunities

Public relations or straight advertising via television opens up a vast new field of opportunity. Today, more than ever before, it has become necessary for big business to justify its existence. Television on film will offer a most unique and effective method of spreading the story of the large corporation to Mr. and Mrs. Public. In a most entertaining manner it will be possible to portray what a big company does for its employes-group insurance, social service, hospitalization, home economics, company stores, extension courses, bonus system, job insurance, retirement funds. What better way could there be to present this story to the peoples of the world than via the motion picture films? The screens of the majority of motion picture theaters in this and many other countries have been closed to the advertising or business propaganda film—and rightfully so. People do not wish to buy propaganda or advertising when they go to the theater. Now, with television, the home screens of the world will be open to the advertiser. Here again the efficacy of the television program on film becomes apparent. You can't drag television cameras all through and around a big plant and put on a carefully planned show. Also the finest

(Continued on Page 231)



BOB CLAMPETT

WRITER - DIRECTOR WARNER BROS. CARTOONS

Now in Production

ON THE FIRST COMMERCIAL CARTOON EVER MADE FOR "TELEVISION"

THE PICTURE ON TELEVISION

By Lewis Allen Weiss

Vice-president-General Manager, Don Lee Broadcasting System and W6XAO, Hollywood.

THE public is waiting, the advertisers are ready, and television is set to go. On that three-point platform, the Don Lee Network confirms a decision made 13 years ago when it first put its television station, W6XAO, into operation with the statement that "in a decade, the experiment of television would be a reality in the broadcasting industry."

Discounting the war years that have held up the mass production of television sets, the prophecy of our television experts, shared with others all over the country, came to a climax when the Federal Communications Commission held a hearing to determine the status of television and to make ready its introduction to the immediate post-war world.

Part of the testimony made at the hearing was on a purely technical basis, to substantiate what is common knowledge in the industry that television is ready and capable of giving the public greater and richer measure of broadcasting's third dimension than either radio or motion pitcure could deliver at a comparable point in their development, and thus should be permitted to operate in or near its present band in the spectrum.

Television stations are now capable of servicing nine-tenths of the population of most major cities in the country. We've also had promises from our set manufacturers that receiving sets will cost as little as \$150, combining television with both FM and AM reception. The potential television "looker" is rightfully at that point where he can make his contribution to the success of commercial television.

Public Interest

For it goes without saying that public enthusiasm about television is of paramount importance. Coming right down to brass tacks, it will be the "looker" who will make it possible for the advertiser to make full use of television, and as you'll recall, the advertiser is a third, and important necessary third, in our three-part platform for the new video industry. Certainly a public that has been asked to back and fill, so to speak,

while those in the industry make up their minds, isn't going to be a clamoring public who will respond when the signal s given.

And now, about that "advertising third." Already every alert advertising agency in the country is making investigations about the potentialities, the cost and the requirements of this fascinating new medium. At W6XAO we've consulted with both production men and executives in advertising agencies in developing our program plans. We've asked them for specific problems to solve, so that together we have come to some definite conclusions about the restrictions and obligations that must be observed in successful commercial television.

Programming Discussed

Actually, the programming of television and the production of program units are simple problems, and with the experience of radio to guide us, are easily solved by the application of sound showmanship principles to this new means of expression.

In our studios on Mount Lee, we've already produced about every type of program feasible for broadcast. Many successful years of remote broadcasting are on our records, and as those who live in the Los Angeles area remember, the sight of the huge red W6XAO television remote unit became a familiar part of our pre-war parades, festivals, athletic meets and aquatic events. We've taken our receivers up into the air to experiment with a combination of airplane and land television reporting. We've filmed news events, a fire in downtown Los Angeles is one I remember, a flood at Long Beach another, and on a tele-visioned program later the same day shown the pictures we obtained.

With studio programs, our experience has also been wide. Operas, famous dramas, original plays and musicals have been produced before our cameras, and we've even tried out the five-a-week serial with great success. Working with miniatures, combining film with live talent in dramatic sequences and introducing news reporting and commentary

CONSIDER TELEVISION AS AN ACTUALITY!

THE time when television was "just around the corner" has now passed. Today we have with us a vigorous new industry, complete with all the problems of a virtually untried medium.

These problems are serious but not insurmountable. There are "bugs" inherent in all new things. Television's "bugs" must be overcome. The future of the entire industry lies in our approach to these problems, and the solutions we find for them.

In a comparatively short time, televising will begin on a large scale. Too late then for "bugs." Public and sponsor acceptance of television, for years to come, will depend on the groundwork that is being done today.

In television, the glamour and eyeappeal of the stage, the imagery of the radio, the technical skills of the screen must be successfully combined. How to accomplish this? What talent will be best suited for the job? What stories are adaptable to this new medium? These are the problems with which Ray-Tele can help you. We at Ray-Tele have studied and anlyzed these very difficulties. When we found the answers, we went into business for the express purpose of helping you and the industry as a whole.

Use Ray-Tele for its fund of information. Use it as a stepping-stone to success in a new business which may easily become the greatest the entertainment world has ever known.

RAY-TELE • **BR. 9-5365**

604 Fifth Avenue, New York 20, N. Y.

FOR QUALITY

through visual means have been among our experiments. And of course, by now, after some 15,000 hours of television broadcasting, we're past masters on the "how to do it" broadcast, even having grown a Victory garden before the eyes of the "lookers" tuned to W6XAO.

Question of Cost

And so, of course, we finally come to the question of cost. Here I have some more specific information. First, because hundreds of thousands of dollars worth of experimenting has gone on in the program departments of the nation's television stations, the advertisers who buy television programs will inherit a production cost much lower than they would have if organizations like Philco, RCA, Farnsworth and others like ourselves at Don Lee had limited our ground breaking interests to purely technical experiments. Secondly, we've actually computed what the technical operating costs will be, and thus have given potential advertisers some material with which to start figuring. We find that the technical costs will start at \$300 per hour—that being the cost to the station to maintain the staff and put the cameras and transmitter into operation for a four hour broadcast schedule.

As I've said, for nearly 14 years now the Don Lee Broadcasting System has been helping write the history of television. We began operations in our original downtown Los Angeles studios, and in 1940 opened the world's first built-fortelevision studios atop Mount Lee in the heart of Hollywood. That we're looking forward to the future of both television and Frequency Modulation you all know by now, from the news released a few weeks ago telling of the purchase by the Don Lee Broadcasting System of a 160acre site at Deer Park on Mt. Wilson, the most advantageous site our engineers could find in Southern California, the site from which we hape soon to cover all of Southern California as our commercial television station goes into regularly scheduled operation.

FILM OUTLOOK IN TELEVISION (Continued from Page 227)

live talent program produced in America means nothing in a country where English is not spoken or understood. The cost of the program or series of programs must be borne by the one-shot performance. Suppose it were to cost ten times as much to put it on films? By the simple expedient of what we in the picture business call "lip dubbing," we can translate the program into any and every language and send prints of such programs to all countries just as we now send foreign versions of our motion pictures. This enables our giant corporations whose scope is world-wide to reach via television not just millions in this country but eventually, billions of people.

Film as Backbone

It is quite evident that telecasting stations will be in operation considerably sooner than network programs will become available and it is here that the film transcription or "Telereel" will prove to be the backbone of the programming system.

In the post-war period when television will flourish, the advertising dollar will be scrutinized more carefully than it is today. National advertisers will not be so ready to buy a 15-minute or half-hour

spot on a network between the East and West Coasts and perhaps be in competition with a top rating program carried by another network or face a three-hour time differential. Advertising managers and market analysts will lean heavily on the spot type of telecasting. They will pick the markets in the order of their desirability, concentrate their appropriations on selected territories and make it a point to cover them at the best possible hours.

RKO is going to make syndicated film programs available as soon as station construction starts. It is preparing now. Even after national or large regional networks are established, the "Telereel" will remain an important, if not the most important factor for all programs with the exception of course of sporting events and news events which are always hot flash news.

No single individual advertiser, no single advertising agency, nor any group of advertising agencies could possibly operate such enormous facilities as RKO and its subsidiary, Pathe News, Inc., now offer the potential television users of this country. These facilities are now available to both reputable advertisers and recognized advertising agencies through RKO Television Corporation.

TELEVISION HIGHLIGHTS-1944

(From the Files of RADIO DAILY)

A review of the past year's television events indicates the tremendous post-war possibilities of the sight-and-sound medium. Increasing momentum is evident from the upward surge of activity reported in the columns of RADIO DAILY. The following pages contain the recorded highlights of the year in television.

JANUARY

- Jan. 18—The newly formed Television Broadcasters Association discussed and adopted by-laws at its first annual meeting held at Chicago.
- Jan. 21—NBC inaugurated a 50-week television course for its staff engineers in anticipation of post-war development of television.
- Jan. 26—Senor Bonifacio Fernandez Aldana, New York correspondent for a group of South American newspapers, told members of the newly formed Television Press Club at the group's first monthly luncheon that Mexico will be one of the centers of television in Latin-America.
- Jan. 28—NBC and RCA in cooperation with General Electric began installation of 45 additional tele receivers in hospitals for wounded servicemen in the metropolitan New York area. Mid State Television Corp. was formed in Boston and planned to open tele studios in Lowell, Mass., within the year.

FEBRUARY

- Feb. 1—After serving two years with OWI, F. P. Nelson has returned to Westinghouse Radio Stations, Inc., to resume his old post. He will undertake new duties as manager of television and shortwave.
- Feb. 2—The Television Broadcasters Association, Inc., elected Allen B. DuMont as its first president. Other officers chosen were Lewis Allen Weiss, Don Lee Broadcasting System, vice-president, and John R. Poppele, WOR, assistant secretary-treasurer.
- Feb. 8—First tele application of 1944 was filed by the Jamaica (N. Y.) Radio & Television Corp., which put in for channel three, previously unassigned.

Feb. 25—A cooperative time exchange was set up between WNEW, New York independent station, and W2XWV, experimental television outlet operated in New York by the Allen B. DuMont Laboratories.

MARCH

- Mar. 1—Will Baltin, program manager for the DuMont television station W2XWV, was named secretary-treasurer of the Television Broadcasters Association at a meeting of the organization's board of directors. In an address before the Television Press Club, Dr. Alfred N. Goldsmith, vice chairman of the RTPB, forecast no conflict between FM and television in the post-war period.
- Mar. 6—Television was dramatized in the morning over CBS in one of the "American School of the Air" radio series, titled "The Vacuum Tube." Featuring Worthiton Miner, manager of Columbia's tele department, the script dramatized the role of the tube in the development of eye-and-ear entertainment.
- Mar. 20—Statements made by NBC, CBS and A.T.&T. over the weekend indicated steadily increasing interest in planning television's future. N. Ray Kelley was appointed by NBC to take charge of the network's technical facilities of television. Plans for a \$2,000,000 trial of short-wave radio relays for intercity tele and telephone relays was made by A.T.&T. Paul W. Keston, executive vice-president of CBS, forecast post-war tele in full and natural color in the annual report to CBS stockholders.
- Mar. 21—Stromberg-Carlson Co. announced plans for a tele station and a new "Rochester Radio City" housing AM, FM and television as a post-war development through William Fay, vice-president in charge of broadcasting.

TELEVISION HIGHLIGHTS

- Mar. 24—Allen B. DuMont, president of TBA, told the American Marketing Association at a Murray Hill Hotel luncheon that advertisers and advertising men are already convinced that television advertising has real possibilities. He spoke on the topic, "T.N.T.—Television Now and Tomorrow."
- Mar. 29—Thomas F. Joyce, manager of RCA Victor's radio, phonograph and tele department, indicated in an address before a morning educational forum of The Advertising Women of New York that television's quality of immediacy would provide the greatest vehicle of mass education that he had ever known.

APRIL

- April 3—Gerald Cook, former director of tele for the BBC, expressed the belief that progress of television programming would be advanced 10 years through a merger of sight-and-sound facilities by the webs and other interested parties for a training period of three years only. He added that this opinion was his own and did not reflect the policy of BBC. First among the class magazines to experiment with television was the "Mademoiselle," with its debut over W2-XWV, aimed at projecting what's new in the news in fashions, in jobs and futures and in fun.
- April 3—As guest speaker at the organizational meeting of the newly formed Television Producers Association, Allen B. DuMont stressed the improvement of the technique of writing and creating television programs.
- April 4—Approval of 12 members in the Television Broadcasters Association, Inc., was voted by the board of directors at a meeting held in the TBAI offices in New York, bringing the total membership to 15.
- April 7—Addressing a luncheon meeting of the Radio Executive Club on "Television's Opportunities," Dr. Alfred N. Goldsmith, electrical engineer, declared that the industry will be a boom to employment and that "science and engineering will have added one more great implement to those at the disposal of humanity." . At a special press luncheon, General Electric revealed its postwar television plans. . . Announcement was made by the Radio Executives Club that the REC would conduct a "Television Seminar' starting in May and continuing through September, covering all phases of the subject.

- Apr. 10—WFIL, of Philadelphia, has designated the station's "Playhouse Studio" as experimental studio for video coaching. . . . First television premiere of a film to be televised at key points across the country was MGM's "Patrolling the Ether." James L. Fly, chairman of the FCC, appeared before the NBC tele cameras in New York to introduce the film which dramatized the war time activities of the radio intelligence division of the FCC.
- Apr. 19—Television Actors Guild, social organization devoted to the advancement of television acting, was formed in Hollywood. John Folger was named temporary chairman.
- Apr. 21—Eddie Cantor announced from Chicago that he plans to jump the gun on television next season by doing away with scripts and staging his broadcasts as though they were being presented in front of television cameras.
- Apr. 24—Post-war industrial applications of television were outlined in Detroit by Ralph R. Beal, assistant to the vice-president in charge of RCA Laboratories, before a meeting of the Engineering Society. He looked for tele as a visual means of plant control to speed production.
- Apr. 24—Locations for "Vaquercs Ride" is believed to be the first television "Western" movie, shot at Coe's Cove Rancho in Hollywoodland. Telecine 16mm. film was used for the first time.
- Apr. 25—Growing interest of the nation's newspaper publishers and editors in the post-war development of television, FM, and facsimile were indicated at the convention of the American Newspaper Publishers Association at the Waldorf-Astoria, New York.
- Apr. 26—Speaking on the topic "The Story of Television Programming," Gilbert Seldes told members of the Television Press Club that television does best what is caught unprepared.... In a move which was believed to be designed to head off the formation of a Television Actors Guild in New York similar to the one recently organized on the West Coast, Equity Screen Actors Guild and the American Federation of Radio Artists issued a joint statement.

MAY

May 5—Transformation of color in television to gradations of black and white was demonstrated by Bud Gamble, of Farnsworth Tele-

vision & Radio Corp., at a meeting of the TPA held in New York.

- May 8—The first commercially sponsored television program on the Balaban & Katz station, WBKB, was purchased and broadcast Friday night, May 5, for Marshall Field Co., Chicago.
- May 18—In step with the industry's progressive thinking and planning, RADIO DAILY presented the first issue of TELEVISION DAILY as a monthly supplement to this publication, TELEVISION DAILY will be published on a monthly basis for the duration of the war as an enterprising voice in the new field of revolutionary electronics.
- May 25—Television and other refinements of the radioart will provide millions of jobs for American s Idiers. Senator Burton K. Wheeler, D. Mont., declared during his address on the occasion of the 100th anniversary of the sending of the first telegraph message. . . . George Henry Payne, former member of the FCC, has been named vice-president and director of the Finch Telecommunications Co. of New Ycrk. . . The board of governors of the Television Press Club named Richard W. Hubbell chairman of the scribes' organization at its first semi-annual election of officers.
- May 31—Television as it may be applied to department store advertising was demonstrated by NBC and RCA for 22 representatives of retail organizations comprising the Associated Merchandising Corp.

JUNE

- June 6—First film company to enter the television film production field is RKO with a new subsidiary known as RKO Television Productions, Inc., which will produce news and entertainment shorts exclusively for video.
- June 7—With the Allied Expeditionary Forces smashing inland from the French coast, two New York television stations, WBNT and WABD, went on the air with special events marking the historic thrusts into European contient.
- June 15—A three-city tele network will pick up the video signals of WNBT, New York, and the pictorial proceedings of the Republican National Convention in Chicago will be made available to about 7,000 television in the Eastern area, C. L. Menser announced. . . . Staging of a two-hour musical comedy, "The Boys from Boise" on Thursday, July 13, will mark the opening of DuMont's new WABD studios and will represent television's most ambitious program planning to date in the New York area.

JULY

- July 6—Pacific Coast Independent Television Producers Association was formed, with Patrick Michael Cunning, Hubbard Hunt, Rudi Feld, Armand Piaggi and Joseph Sawyer charter members.
- July 13—Because of an increasing demand for speakers versed in the technical and nontechnical aspects of television, a Television Speakers Bureau was established by the Television Broadcasters Association, Inc.
- July 24—The award for the year's outstanding contribution to the art of television programming was presented to WRGB, Schenectady, N. Y., by Dan D. Halpin, president of the American Television Society.

AUGUST

- Aug. 3—Announcement was made of an ambitious plan to educate agency executives and advertisers in the post-war potentialities of television with the launching in Baltimore on Aug. 20 of a 10-day tele demonstration by NBC and RCA in co-operation with radio station WBAL.
- Aug. 8—First advertising agency to set up regularly weekly auditions for commercial tele talent is Ruthrauff & Ryan with try-outs scheduled for ever Friday at WABD.

SEPTEMBER

- Sept. 5—Widespread interest in television as an advertising medium is indicated in the countrywide response of General Electric's invitation extended to the stores to be present at a program to be staged in Schenectady, N. Y., in the studios of WRGB, on Friday, Sept. 29.
- Sept. 8—In a closed meeting of the television and FM panels of the RTPB held in New York City, preliminary discussions of allocations aired in preparation for the hearings to be conducted in Washington, beginning Sept. 28.
- Sept. 18—Presentation of a plaque by the American Television Society to Allen B. DuMont, president of DuMont Laboratories, Inc., for the "best contribution to television during the year" highlighted the first fall meeting of the American Television Society Sept. 14.

OCTOBER

Oct. 2—A settlement of the differences of opinion between the television and FM panels of the RTPB was reached at the frequency allocation hearings conducted by the FCC.

TELEVISION HIGHLIGHTS

This dispute, the first to be brought into the open since the sessions started Thursday, Sept. 28, involved claims for that portion of the spectrum between 50 and 56 megacycles, the present No. 1 video band.

- Oct. 3—Four out of every ten persons plan to purchase television sets when they are released after the war; six out of ten postponing the purchases of tele sets say they will buy within three years after the end of the war; six cut of 10 say the clarity of the picture will not influence their purchases, it was disclosed by the Allen B. DuMont Laboratories following a survey conducted within the New York City metropolitan area.
- Oct. 5—The appointment of Jay Strong to the post of director of television was made by the Basch Radio Productions.
- Oct. 9—In collaboration with the University Extension of Columbia University, NBC University of the Air inaugurated a television course which is recognized for credit toward a University degree.
- Oct. 13—Transoceanic television has not been stressed enough, Gilbert Seldes, head of CBS' television division, declared at the weekly luncheon of the Overseas Press Club of America in New York. He referred to a request for an article made by an Australian publication that has evinced great interest in the new medium and its prospects for the "world down under." . . . The War Finance Committee of New York announced that television will be used as a public service function when it is employed in the fall as a training medium for the Sixth War Loan workers.
- Oct. 16—Emphasis on the use of films as television entertainment characterized the presentation of four speakers before a meeting of the American Television Society in New York.
- Oct. 17—In Washington, D. C., television witnesses paraded before the FCC allocation hearing giving views for and against development of video in its present stage as a sight and sound media.
- Oct. 18—Television stations, at least for a good many years to come, will be limited to cities having populations of more than 500,000, Lewis Allen Weiss, head of the Don Lee Broadcasting System, told the FCC at its allocation hearing in Washington. Only cities of a half million or more will be able to support a video broadcasting station, he declared. . . Looking ahead 10 years and envisioning the potentialities of television

in the home, Thomas J. Joyce, tele executive for the RCA Victor Division, told the annual Boston Conference on Distribution that in 1955 there will be 30,000,000 homes equipped with video receivers, offering that many showrooms for merchandise as against 1,777,000 retail spots now used for display.

- Oct. 19—Supporting the statement of Don Lee's Lewis Allen Weiss that television is too expensive for any but the larger cities, James D. McLean, General Electric television sales manager, told the FCC that the initial expense for a television station would run from \$150,000 to \$300,000, with operating expenses amounting to about another \$350,000 per year. The estimate for the initial cost makes no provision for grounds, buildings or antenna supporting structures.
- Oct. 24—Television holds great promise in the first post-war decade if it can be developed to satisfactory state and released soon enough, Arno H. Johnson, director of media and research of J. Walter Thompson Co., told members of the Radio Executives Club of New York City.
- Oct. 27—Two spokesmen for television who urged the immediate post-war development of the video art were heard as witnesses before the FCC's Allocation hearing, when Niles Trammell, president of NBC, and Allen B. DuMont, president of the Television Broadcasters Association, Inc., gave testimony. Trammell counseled the Commission to give a green light to full scale television broadcasting on present standards. Urging the FCC to end the "indecisions and restraints" that have pinned down immediate expansion of television into a national service, DuMont asked the FCC to accept the recommendations voiced by Panel No. 6 of the RTPB.
- Oct. 31—Three media, television, radio and newspaper, will collaborate to bring a visual presentation of the election reports to televiewers over WABD, Nov. 7, it was announced by Raymond E. Nelson, vice-president in charge of television and radio for the Charles M. Storm agency; Bernice Judis, vicepresident and general manager of WNEW; Carl Warren of the New York "Daily News."

NOVEMBER

Nov. 2—Television's power will be such in 1948 that the presidential nominees will be chosen for their telegenic qualities just as they are now nominated with their radio voice in mind, Edward Sobol, production director of

TELEVISION HIGHLIGHTS

NBC television, told the members of the Television Press Club at its first meeting of the new season.

Nov. 8—Television—heralded as a major media in the Presidential election to come in 1948—played an interesting role in the election returns of last night by devoting full time on three New York stations, one in Chicago and one in Los Angeles. Other tele election programs were carried in Schenectady and Philadelphia with stations participating in an inter-city network linked with New York.

Nov. 13—Plans for the first annual conference of the Television Broadcasters Association were disclosed at a press luncheon at the Hotel Commodore in New York City with Jack R. Poppele, chairman of the conference; Will Baltin, secretary of TBA, and Ralph Austrian, chairman of the program, discussing the convention planning.

Nov. 20—A discussion panel on television in advertising agencies was organized in order to strengthen agency television directors' voice in the forthcoming annual Television Broadcasters Association, it was announced by Elkin S. Kaufman, executive vice-president of William H. Weintraub & Co. and moderator of the panel.

Nov. 30—In a by-lined article, Herbert Graf, NBC director of operatic production and stage director of Metropolitan Opera Company, stated that "television, will in my opinion, be the decisive medium in making opera a popular art in America."

DECEMBER

Dec. 6—WKY, Oklahoma City, NBC affiliate, used television effectively during the Sixth War Loan Drive on a tour of 19 Oklahoma cities. Thousands of adults lined auditorium aisles for closeups of reflector pictures of local dignitaries, citizens, children, pets, and bombarded technicians with amazingly searching questions.

Dec. 11—First annual conference of the Television Broadcasters Association, Inc., got underway at the Hotel Commodore in New York City in the morning with about 700 registrants expected to be on hand for the opening session of the two-day meeting. Registration included television broadcasters, radio station operators, manufacturers of equipment, advertising agency executives, and publishers, which indicated the widespread interest in the post-war planning of video.

- Dec. 12—Sixteen television leaders were presented awards for outstanding contributions to video development at the First Annual Conference Banquet of the Television Broadcasters Association. . . Three authorities of television, Thomas Hutchinson, head of RKO Television Productions, Commander William Eddy, formerly connected with the television firm of Balaban & Katz Corp., and Richard W. Hubbell, production manager for the Broadcast Division of the Crosley Corp., of Cincinnati, Ohio, are preparing books on television that are scheduled to appear during 1945.
- Dec. 13—Jack R. Poppele. chief engineer and secretary of WOR, New York, was elected president of the TBA at the closing session of their two-day meeting at the Hotel Commodore yesterday. Other officers elected were Robert L. Gibson, of General Electric, vice-president; Will Baltin, secretary-treasurer; and O. B. Hanson, chief engineer and vice-president of NBC, as assistant treasurer.
- Dec. 15—Television will be the motion picture industry's most powerful medium for exploiting the glamour of Hollywood and its stars, Blaus Landsberg, director of television station W6XYZ, Hollywood, told a special events meeting of the American Television Society at the Museum of Modern Art in New York.
- Dec. 18—Rene Barthelmy, French television expert, in an interview with Charles Collingwood, CBS correspondent in Paris, told of successful experiments with 1,000 line screen and predicted the eventual adoption by television interests throughout the world.

 . . . Plan to introduce television in Utah was announced by S. S. Fox, president and general manager of the Intermountain Broadcasting Corporation which operates KDYL with the filing of a license application with the FCC.
- Dec. 26—Speaking before a class in tele-techniques at New York University, P. D. Mc-Lean, GE sales manager of television equipment, predicted that there will be at least 150 tele stations in operation within five years after the war. He also pointed out that television would be brought to the smaller communities with the use of satellite stations, low power relay stations drawing their programs direct from the networks, and lacing the usual studio facilities.

Television Broadcasting Stations

As of January 1, 1945

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

Licensee and Location	Call Letters	Frequency (kc)	ESR (Effective Signal Radiated)		
Balaban & Katz Corp. Chicago, Ill.	WBKB	60000-66000 Ch. 2	550	Condl. CL.	
Columbia Broadcasting System, Inc. New York, N. Y		60000-66000 Ch. 2	1000		
Don Lee Broadcasting System Hollywood, Calif	··KTSL	50000-56000 Ch. 1	5600		
General Electric Co. Schenectady, N. Y Transmitter: New Scotland, N. Y		66000-72000 Ch. 3	3100	S.A. rebroad- cast WNBT aural and loca- tion announce- ments	
The Journal Co. Milwaukee, Wisc	WMJT	66000-72000 Ch. 3	1200	, (CP only)	
National Broadcasting Co. New York, N. Y	··WNBT	50000-56000 Ch. I	1800		
Philco Radio & Television Corp. Philadelphia, Pa. Transmitter: Springfield Twp., Pa.		66000-72000 Ch. 3	500		
Zenith Radio Corp. Chicago, Ill.	WTZR	50000-56000 Ch. 1	1270	(CP only)	

Pending Applications

Location	Channel MC	Call Letters	Licensee	ee Visual-Aural Power (Watts)		Remarks
			CALIFO	ORNIA		
Fresno	No. 2 60-66		J. E. Rodman		• •	Commercial construction permit ap plication. No power specified.
Hollywood	No. 1 50-56	W6XAO	Don Lee Broad- casting System	1000	150	Licensed experimentally.
Hollywood	No. 1 50-56	KTSL	Don Lee Broad- casting System	1000	150	Commercial construction permit.

Location	Channel MC	Call Letters	Licensee	Visual-Aural Power (Watts)	Remarks
Los Angeles	No. 2 60-66	W6XHH	Hughes Produc- tions, Division of Hughes Tool Company	10000 10000	Experimental construction permit expired. Hearing on application for commercial status indefinitely continued in accordance with FCC policy of Feb. 23, 1943.
Los Angeles		••	Los Angeles Tin Mirror	ies	Commercial television application.
Los Angeles	No. 8	••	MGM-Loew's Pix Corp.		Commercial television application.
Los Angeles	No. 3 66-72		Warner Bros. Broadcasting Corp.		Commercial construction permit application. No power specified.
Los Angeles	No. 3 66-72	••	National Broad- casting Co.	4000 2000	Commercial construction permit application.
Los Angeles	No. 4 78-84	W6XYZ	Television Productions, Inc.	4000 2000	Licensed experimentally. Applica- tion for conversion to commercial status.
Los Angeles	No. 6 96-102	KSEE	Earle C. Anthony, Inc.	1000 1000	Commercial construction pcrmit application expired. Application for reinstatement.
Los Angeles	No. 7 102-108		Consolidated Broadcasting Corp., Ltd.		Commercial construction permit application. No power specified.
Los Angeles	No. 8 162-168		Blue Network Co., Inc.		Commercial construction permit application. No power specified.
Los Angeles (Portable- Mobile)	No. 11-12 204-216	W6XLA	Television Productions, Inc.	25 None	Construction permit for television relay pick-up station to be used with W6XYZ.
Los Angeles (Portable- Mobile)	318-330	W6XDU	Don Lee Broad- casting System	15 50	Licensed. Television relay pick-up station used with W6XAO.
Riverside (T—San Ber- nardino)	No. 3 66-72		Broadcasting Corp. of America	3000	Commercial construction permit application. No Aural power specified.
San Francisco	No. 1 50-56	.,	Don Lee Broad- casting System	1000 1000	Commercial construction permit application.
San Francisco	No. 2 60 -66	WGXHT	Hughes Produc- tions, Division of Hughes Tool Co.	10000 10000	Experimental construction permit expired. Hearing on application for commercial status indefinitely continued according to FCC policy of Feb. 23, 1943.
San Francisco	No. 6 96-102		The Associated Broadcasters, Inc.	4000 3000	Commercial construction permit application.
Stockton	No. 3 66-72		E. F. Peffer		Commercial construction permit application. No power specified.
			COLO	RADO	
Denver	No. 2 60-66		National Broad- casting Co.	4000 2000	Commercial construction permit application.
Denver	No. 3 66-72		KLZ Broadcast- ing Co.		Commercial construction permit application. No power specified.
Denver			al Broadcasting Co t has been withdra		for a commercial con-

Location	Channel MC	Call Letters		Visual- Power (Remarks
			CONNEC	TICU	Ţ	
Hartford	No. 7 102-108		The Travelers Broadcasting Service Corp.			Construction permit for commercial station. No power specified.
Greenfield Hill	No. 8 162-168		The Connecticut Television Co.			Commercial construction permit application. No power specified
			DISTRICT OF	COL	UMBI <i>F</i>	I.
Washington	No. 1 50-56	wзхwт	Allen B. DuMont Laboratories, Inc.	4000	2000	Experimental construction permit expired. Applications for rein statement and conversion to commercial status.
Washington	No. 2 60-66	WNEW	National Broad- casting Co.	4000	2000	Commercial construction permit reinstatement application.
Washington	No. 4 78-84	• •	Phileo Radio & Television Corp.			Commercial construction permit application. No power specified.
Washington	No. 4 78-84		Bamberger Broadcasting Service			Commercial construction permit application. No power specified.
Washington	No. 6 96-102		Capitol Broad- casting Co. MGM-Loew's			Commercial construction permit application. No power specified.
Washington	No. 8		Pix Corp.		••	Commercial television application.
			FLOR	DΑ		
Jacksonvi ¹ le	No. 1 50-56		Jacksonville Broadcasting Corp.			Commercial construction permitapplication. No power specified
			ILLIN	OIS		
Chicago	No. 1 50-56	w9xzv	Zenith Radio Corp.	1000	1000	Licensed experimentally. Commercial construction permit expired call letters WTZR. Application for reinstatement seeking indefinite exptension of commencement and completion dates.
Chicago	No. 1 50-56		National Broad- casting Co.	4000	2000	Commercial construction permit application.
Chicago	No. 2 60-66	WBKB	Balaban & Katz Corp.	4000	2000	Licensed commercially.
Chicago	No. 2 60-66	W9XBK	Balaban & Katz Corp.	4000	2000	Licensed experimentally.
Chleag.,	No. 4 78-84	W9XCB	Columbia Broad- casting System	1000	1000	Experimental construction permi expired. Application for reinstate ment and conversion to commer cial status.
Chicago	No. 4 78-84		WGN, Inc.			Commercial construction permit application. No power specified
Hicago	No. 8 162-168		Blue Network Co., Inc.			Commercial construction permit application. No power specified
hicago (Portable- Mobile)	No. 11-12 204-216	W9XBT	Balaban & Katz Corp.	40	None	Licensed. Television relay pick-up station used with WBKB and W9XBK.
Chicago (Portable- Mobile)	384.396	W9XBB	Balaban & Katz Corp.	10	None	Licensed. Television relay pick-up station used with WBKB and
hicago	384-396	W9XPR	Balaban & Katz Corp.	10	None	W9XKB. Licensed. Research and develop-
Chicago	No. 7		Johnson Kennedy Radio Corp.			Commercial television application.
Chicago			Zenith Radio Corp			Application for construction permit for experimental tele station.
Chicago Chicago	No. 7 		Corp. Johnson Kennedy Radio Corp. Zenith Radio			ment only. Commercial television applicati Application for construction pe

	(m.c.)	Call Letters		isual-A		Remarks
			INDIAN	ΝA		
West Lafayette	No. 3 66-72	W9XG	Purdue Univer- sity	750	750	Experimental construction permit Research and development only
Fort Wayne	No. 3 66-72	••	Farnsworth Tele- cision & Radio Corp.			Experimental construction permit application. No power specified
Fort Wayne			Farnsworth Televi- sion & Radio Corp			Application for construction permit for experimental tele station.
Indianapolis	No. 2 60-66		P. R. Mallory & Co., Inc.			Experimental construction permiapplication. No power specified
indianapolis	No. 2 60-66	• •	WFBM, Inc.			Commercial construction permit application. No power specified
Indianapolis						is Broadcasting, Inc., 1 television station.
Indianapolis	••		Capitol Broadcast- ing Corp.			Commercial television application.
			IOW	A		
Iowa City	No. 1 50-56	W9XUI	State University of Iowa	100	None	Licensed experimentally. Research and development only.
lowa City	No. 12 210-216	W9XUI	State University of Iowa	100	None	Licensed experimentally. Research and development only.
			LOUISIA	ANA		
New Orleans		University 6, 96-102 I		has n	ow been	assigned to Channel
New Orleans	No. 1 50-56		Maison Blanche Co.			Commercial construction permi application. No power specified
			MARYL	AND		
Baltimore	No. 4 78-84	• •	The Tower Realty Co.			Commercial construction permiapplication. No power specified
Baltimore	No. 6 96-102		Jos. M. Zamolski Company			Commercial construction permi application. No power specified
Baitimore	No. 6 96-102	••	Hearst Radio, Inc.			Commercial construction permiapplication. No power specified
Baltimore	No. 17-18 282-294		Hearst Radio, Inc.			Construction permit application for experimental relay station. N power specified.
Baltimore			Maryland Broad- casting Co.			Commercial television application.
			MASSACH	USET	TS	
Boston	No. 5 84-90	• •	Westinghouse Radio Stations, Inc.			Commercial construction permi application. No power specified
Boston	No. 2 60-66	• •	E. Anthony & Sons, Inc.			Commercial construction permi application. No power specified
Boston	No. 2 60-66		The Yankee Network, Inc.			Commercial construction permi application. No power specified
Boston	No. 4 78-84		Allen B. Du Mont Labs., Inc.			Commercial construction permiapplication. No power specified
Boston	No. 1 50-56	WIXG	General Televi- sion Corp.			Construction permit application for experimental station. No power specified.

Location	Channel (m.c.)	Call Letters	Licensee	Visual-A Power (v		Remarks
			MICH	IIGAN		
Detroit	No. 1 50-56	• •	The Jam Handy Organization, Inc.			Commercial construction permiapplication. No power specified
Detroit	No. 2 60-66		International Detrola Co.			Commercial construction permiapplication. No power specified
Detroit	No. 2 60-66		King Trendle Broadcasting Corp.			Commercial construction permiapplication. No power specified
Detroit	No. 4 78-84		United Detroit Theatres Corp			Commercial construction permiapplication. No power specified
Detroit	No. 6 96-102		WJR, The Good will Station			Commercial construction permit application. No power specified
Detroit	• •	• •	Detroit Evening News			Commercial television application.
			MINN	ESOTA		
Minneapolls	No. 4 78-84		Industrial Tool & Die Works, Inc.	5000	3000	Experimental construction permi application.
Salaha A.S	·					
			MISS	OURI		
St. Louis	No. 1 50-56		The Pulitzer Publishing Co.			Commercial construction permit application. No power specified
St. Louis	No. 1 50-56		Globe-Democrat Publishing Co.			Commercial construction permiapplication. No power specified
t. Louis	No. 4 78-84		ALFCO Co.	4000	2000	Commercial construction permiapplication.
			NEBR	ASKA		
Omaha	No. I 50-56		Radio Station WOW, Inc.			Commercial construction permiapplication. No power specified
			NEW J	ERSEY		
Camden .	No. 5 84-90	Ex-W3XEF	Radio Corp. of America	30000	30000	Experimental license reinstatement application. Research and development only.
Camden (Portable- Mobile)	321-327	Ex-W3XAI	O Radio Corp. of America	500	500	Experimental license reinstatement application. Research and development only.
Newark	No. 5 84-90	• •	Bremer Broad- casting Corp.			Commercial construction permit application. No power specified
'assale	No. 4 78-84	W2XVT	Alle B. DuMont Labortories, Inc.	50	50	Licensed experimentally. Research and development only.
			NEW M	IEXICO)	
Albuquerque	No. 1 50-56		Albuquerque Broadcasting Co.	3000		Experimental construction permit application. No aural power specified.
Ubuquerque (Portable- Mobile)	No. 17-18 282-294	3	Albuquerque Broadcasting Co.	25		Construction permit application for television relay pick-up station
Albuquerque	Note: A amend	Ibuquerque ed to read'	Broadcasting Co. 'Commercial stati	applicat on'' instea	ion for d of "E	construction permit experimental station."

Location	Channel (m.c.)	Call Letters	Licensee 1	Visual-		Remarks
			NEW Y	ORK		
Buffalo	No. 1 50-56		WEBR, Inc.		• •	Commercial construction permit application. No power specified
Jamaica	No. 3 66-72		Jamaica Radio & Television Co.	250		Experimental construction permit application. No aural power specified.
New York	No. 1 50-56	WNBT	National Broad- easting Co.	5000	3000	Licensed commercially.
New York	No. 2 60-66	wcbw	Columbia Broad- casting System	4000	4000	Licensed commercially with tempo rary facilities.
New York	No. 4 78-84	w2xwv	Allen B. DuMont Laboratories Inc.	1000	1000	Licensed commercially.
New York	No. 17		MGM-Loew's Pix Corp.			Commercial television application.
New York	No. 4 78-84	WABD	Allen B. DuMont Laboratories, Inc.	4000	1000	Application for conversion of W2-XWV to commercial status.
New York	No. 6 96-102	W2XBB	Bamberger Broadcasting Service	4000	2000	Experimental construction permit expired. Application for rein- statement and conversion to commercial status.
New York	No. 8 162-168	W2XMT	Metropolitan Television, Inc.	1000	500	Construction permit on experimental basis expired June 30, 1944 Application for conversion to commercial status.
New York (Portable- Mobile)	No. 8 162-168	W2XBT	National Broad- casting Co.	400	None	Licensed. Television relay pick-up station used with WNBT.
New York	No. 9 180-186		Phileo Radio & Television Corp.			Commercial construction permitapplication. No power specified
New York	No. 11 204-210	• •	News Syndicate, Inc.			Commercial construction permit application. No power specified
New York (Portable- Mobile)	No. 11-12 204-216		Phileo Radio & Television Corp.	15		Construction permit application for television relay pick-up station to be used with WPTZ and W3XE
New York	No. 15 258-264	• •	Blue Network Co., Inc.			Commercial construction permit application. No power specified
New York (Portable- M obile)	No. 15-16 258-270	WIOXKT	Allen B. DuMont Laboratories, Inc.	50	None	Licensed. Television relay pick-up station used with W2XWV.
New York (Portable- Mobile)	No. 17-18 282-294	W2XBU	National Broad- easting Co.	15	None	Licensed. Television relay pick-up station used with WNBT.
New York (Portable- Mobile)	346-358	W2XCB	Columbia Broad- easting System	25	None	Construction permit for television relay pick-up station to be used with WCBW.
New York	& Tele tion to 13 (2:	vision Co.). be operate 30000-23600	d on Channel No.	rmit for 3 AME: watts	Experin NDED to (400 wa	Y. (formerly Radio mental Television sta- prequest Channel No. itts peak) for visual
New York	been g are W	ranted a Co ABD. Lie	mmercial License.	Call l ental tr	etters fo	., N. Y. C., has now or Commercial station or W2XWV is being
New York			Columbia Broad- casting System		***	Construction permit application for experimental station to be operated on 401000 to 417000 kilo. No power and no channe specified.
Rochester	No. 1 50-56		Stromberg- Carlson Co.			Commercial construction permit application. No power specified
Schenectady (T—New Scotland)	No. 3 66-72	WRGB	General Elec- tric Co.	10000	3000	Licensed commercially.
Schenectady	No. 8	W2XGE	General Elec-			Licensed. Studio to transmitter link

Location	Channel (m.e.)	Call Letters	Licensee	Visual-A (Power (Remarks
Schenectady (Portable- Mobile)	No. 8 162-168	W2X1	General Elec- tric Co.	50	None	Licensed. Television relay pick-up station used with WRGB.
White Plains	No. 13 230-236		Westchester Broadcasting Co.			Commercial construction permi application. No power specified
			O	OIH		
Cincionati	No. 1 50-56	W8XCT	Crosley Corp.	1000	1000	Experimental construction permits expired April 28, 1944. Applies tion for extension of completion
Cleveland	No. 1 50-56		National Broa	.d∙ 4000	2000	Commercial construction permit application.
Cleveland	No. 2 60-66		United Broad- casting Co.			Commercial construction permiapplication. No power specified
Cleveland	No. 3 60-72		The WGAR Br	oad-		Commercial construction permi application. No power specified
Columbus	Note: A		_	from Ce	ntral Oh	io Broadcasting Co.
Clacinnati	No. 7		Cinicinnati Bro casting Co.	nd- 		Commercial television application.
			OKLA	HOM <i>P</i>	i.	
Oklahoma City	No. 1 50-56	• •	WKY Radio- phone Co.			Commercial construction permiapplication. No power specified
			OR	EGON		
Seattle	No. 1		Radio Sales Co	orp		Commercial television application.
			PENNS	YLVAN	IIA	
Philadelphia (T-Wynd- moor)	No. 3 66-72	WPTZ	Phileo Radio Television Corp.		10000	Licensed commercially.
Phlladelphla (T-Wynd-	No. 3 66-72		Phileo Radio o	&		Licensed experimentally.
moor) Philadelphia	No. 5	W3XAU	Corp. WCAU Broade		10000	Experimental construction permi
•	84-90		ing Co.	4000	2000	expired. Application for reinstatement an conversion to commercial status
Philadelphia Philadelphia	No. 4 No. 6		Gimbel Bros. The Philadelp	hia		Commercial television application. Commercial construction permi
пацогрита	96-102		Inquirer, Div Triangle Pu	. of		application. No power specified
Philadelphia	No. 7		cations, Inc. WFIL Broadca	st-		Commercial construction permi
Phlladelphla	102-108 No. 7		ing Co. Westinghouse			application. No power specified Commercial construction permi
	102-108		Radio Station Inc.	4000	2000	applications.
Philadelphia	No. 7 102-108	••	Bamberger Broadcasting Service	٠		Commercial construction permi application. No power specified
Philadelphia	No. 9 180-186		WDAS Broade ing Station, In	ast-		Commercial construction permiapplication. No power specified
Philadelphia	No. 18 288-294	• •	Seaboard Radi Broadcasting Corp.			Commercial construction permi
Philadelphla	applies	ation for c	lphia Inquirer (uction p	ermit ha	Publications, Inc.) s been amended to

Location	Channel (m.c.)	Calt Letters	Licensce	Visual-A (Power (v		Remarks
Philadelphia (Portable)	No. 13-14 230-242	W3XP	Phileo Radio Television Corp.		None	Licensed, Television relay pick-up station used with WPTZ and W3XE.
Philadelphia (Portable Mobile)	No. 13-14 230-242	W3XPA	Philco Radio Television Corp.		None	Licensed. Television relay piek-up station used with WPTZ and W3XE.
Philadelphia (Portable Mobile)	No. 13-14 230-242	W3XPC	Philco Radio Television Corp.	&	None	Licensed. Television relay pick-up station used with WPTZ and W3XE.
Philadelphia (Portable Mobile)	No. 13-14 230-242	W3XPR	Phileo Radio Television Corp.		None	Licensed. Television relay pick-up station used with WPTZ and W3XE.
Pittsburgh	No. 1 50-56	• •	Westinghouse Radio Static Inc.			Commercial construction permit application. No power specified.
			RHODI	E ISLAN	D	
Providence	No. 10 186-192		E. Anthony Sons, Inc.	& 		Commercial construction permit application. No power specified.
Providence	• •		The Yankee Network			· Commercial television application.
			TENI	NESSEE		
Nashville	No. 1 50-56	• •	J. W. Birdwel			Commercial construction permit application. No power specified.
			TE	XAS		
Dallas	No. 2		Bob O'Donnel terstate Circ			Commercial television application.
			υ	TAH		
Salt Lake City	No. 1 50-56		Intermountain Broadcasting Corp.		200	Experimental construction permit application.
Salt Lake City	No. 2 60-66	••	Utah Broadcasting Company			Commercial construction permit application. No power specified.
			VIR	GINIA		
Rlchmond	No. 3 66-7 2		Havens & Martin, Inc.	4000	3000	Commercial construction permit application.
			WEST	VIRGINI	Α	
South Charleston	No. 1 50-ŏ6	• •	Gus Zaharis	200	110	Experimental construction permit application.
			WASH	IINGTO	N	
Spokane	No. 1 50-56	• •	Louis Wasmer Inc.	r, 		Commercial construction permit application. No power specified
			WISC	CONSIN		
Milwaukee	No. 3 66-72	WMJT	The Journal	Co. 4000	2000	Commercial construction permiteration for reinstatement seeking indefinite extension of completion date.
Milwaukee (Portable Mobile)	300-312	w9xcv	The Journal (Co. 15	None	Television relay pick-up station construction permit expired. Ap plication for reinstatement.
				244		p about to remputement,

COMMERCIAL TELEVISION STATIONS

PERSONNEL

FACILITIES

ACTIVITIES

WBKB

CHICAGO CHANNEL 2

Frequency
Power 4 Kw.; 2 Kw.
Effective Signal Radiated796
Owned-Operated ByBalaban & Katz Corp.
Business Address
Phone NumberFranklin 5025
Transmitter & Antenna Location . 190 N. State St.
Time on the AirMonday and Wednesday,
3 to 4 p.m.; Tuesday, Thursday and Friday,
7:15 to 9 p.m.

Personnel

Chief Engineer
Four Technicians
Program Director
Ten Girls in the Program Department Who
Operate Cameras and All Equipment.

FACILITIES

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

ACTIVITIES

News, fashion shows, sports (indoor) such as judo, fencing, boxing; dramatic shows; musical comedies; operettas; music and variety acts such as ventriloquists, puppets, marionettes, magicians, etc.; quiz shows; educational; lessons in dancing, Spanish, exercises for health and beauty.

W 9 X Z V W 9 X C V

CHICAGO

(Experimental)

Frequency: 50000-56000 Kc.; Power: Sight and
Sound, 4500 Watts
Effective Radiated Signal
Owned-Operated By Zenith Radio Corp.
Business-Studio Address6001 Dickens Ave.
Phone NumberBerkshire 7500
Transmitter & Antenna Location 135 S.
LaSalle St.
Time on the Air

Personnel

President	. E.	F.	McD	one	ald,	Jr.
Asst. Vice-President			J.	E.	Bro	wn

W6XYZ

HOLLYWOOD

(Paramount Studio Lot)
CHANNEL 4

Frequency: 78,000-84,000 Kc.; Power: Visual, 1.000 W; Oral, 1,000 W.

Owned-Operated By....Television Productions, Inc..

Business Address......5451 Marathon St., Hollywood 38

5451 Marathon St., Hollywood 38
Time on the Air......Six Hours Per Week

Personnel

PresidentPaul	
Vice-President Bernard	Goodwin
Vice-PresidentY. Frank	Freeman
Station Director	andsberg

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. A relay transmitter, W6XLA, to operate in conjunction with W6XYZ, was also developed and constructed by the company. A special antenna system combining a doublecone type of antenna for video and a special four di-pole antenna for audio of its own design and construction are used. Studio facilities also include a flexible lighting arrangement, slide and background projection apparatus and screens.

ACTIVITIES

W6XYZ has operated regularly since February 1, 1943, each Wednesday and Friday night and has been producing a weekly total of four to six hours of live-talent programs. These programs were entirely dedicated to the training of Civilian Defense volunteers until the summer of 1943, since which time entertainment as well as educational programs have been

aired. These programs include gymnastic courses, museum visits, variety shows, dramatic skits and one-act plays. Technical development has been directed toward improvement and simplification in the operation of present equipment as well as to the design and construction of special effects and relay equipment.

KTSL

LOS ANGELES (HOLLYWOOD)-EST. 1931 CHANNEL 1

.50000-56000 Kc.

Frequency
Power: Sight, 4000 Watts; Sound, 2000 Watts
Effective Signal Radiated5600
Owned-Operated By Don Lee Broadcasting
System
Business Address 5515 Melrose Ave.,
Hollywood 38
Phone Number
Transmitter & Antenna Location3800 Mount
Lee Drive

Time on the Air......Alternate Mondays, 7 to Personnel

Thomas S. Lee

10 p.m.

President

riesident
Vice-President and General
ManagerLewis Allen Weiss
Technical Director of
Television
Assistant Technical Director
of Television
Television EngineerWilliam S. Klein
Television EngineerGilbert P. Wyland
Television EngineerJoseph N. Dean
Television EngineerFred W. Mueller
Television ProducerJack Stewart
Film Director

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.

K6XDU (experimental television relay station operating with KTSL) operates on 324 megacycles and is a beam relay type television transmitter used for outside pickups.

An uninterrupted schedule of television programs has been maintained since 1943, largely directed to bolster public morale in the War Effort. Specially written and produced dramas have been televised with living actors in the interests of the Red Cross Blood Donor appeals, War Bonds, USO entertainment and many others. Vaudeville shows have also been televised in which well-known Hollywood talent has appeared.

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

Film subjects have included cartoons from Walt Disney and others, OWI war films, shorts. musicals, and occasionally a feature.

RECEIVERS: There are some 400 television receivers in the service area of W6XAO, some as far as Pomona at 35 miles away, a number in Long Beach at 25 miles away and many in cities at lesser distance. The predominant commercially manufactured television receiver is the TRK12 or 120 of RCA. There are some RCA TRK9, and approximately 50 TT5 RCA television receivers. A number of the latter are operating satisfactorily in Long Beach at 25 miles from W6XAO. Other commercially manufactured television receivers are the local Gilfillan G12 which is an equivalent to the RCA TRK12 and utilizes a 12-inch cathode ray tube, some Dumont 12 and 20-inch tube television receivers, the General Electric 12's and 9-inch receivers, and the Stromberg-Carlson and Stewart-Warner 12 and 9-inch receivers.

MILW AUKEE

CHANNEL 3 (C. P. Only)

Frequency: 66000-72000 Kc.; Power: Sight, 4180
Watts; Sound, 3350 Watts
Effective Radiated Signal
Owned-Operated By The Journal Co.
Business-Studio Address720 East Capitol
Drive
Phone Number
Transmitter & Antenna Location720 East
Capitol Drive

WABD

NEW YORK CITY CHANNEL 4

Power...Sight, 4000 Watts; Sound, 1000 Watts Owned-Operated By......A!len B. Du Mont Laboratories, Inc. Business-Studio Address....515 Madison Ave., New York City

Phone Number...........PLaza 3-9800 Transmitter and Antenna Location.....Same Tuesday, Wednesday and Sunday evenings

COMMERCIAL TELEVISION STATIONS

Personnel

President	.Allen B. Du Mont
General Manager	Samuel H. Cuff
Asst. Gen. Mgr	Robert F. Jamieson
Chief Engineer	Sal Patreimo
Chief Operating Engineer	Morris Barton

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.

ACTIVITIES

This outlet serves not only as a commercial telecast service but also as a laboratory for practical experience. Engineering, programming and advertising sponsorship aspects of television broadcasting are being worked out in actual practice. Broadcasters, engineers, producers, performers, advertisers, advertising men and others interested in television have been granted use of station facilities.

w c B w

NEW YORK CITY

CHANNEL 2

Frequency: 60000-66000 Kc.; Sight, 61250; Sound, 65700

Owned-Operated By...Columbia Broadcasting
System

Time on the Air..... Thurs. & Fri., 8-10 p.m.

Personnel

Manager	Worthington Miner
Program Director	Gilbert Seldes
Chief EngineerDr.	Peter C. Goldmark
Production Manager	B. F. Feiner, Jr.
Publicity Director	

ACTIVITIES—1944

On May 5, 1944, CBS Television returned to a schedule of two hours a week of live television operations. Three weeks later it expanded its schedule to four hours a week.

This schedule, with an emphasis upon the development of new program patterns, is being maintained through the year 1945.

WNBT

NEW YORK CITY CHANNEL 1

riednest, 20000-20000 Fc. (Bidit, 21720)
Sound, 55750); Power: Sight, 5000 Watts;
Sound, 3250 Watts
Effective Signal Radiated1800
Owned-Operated ByNational Broadcast-
ing Co.
Business Address30 Rockefeller Plaza
Phone Number
Studio Address30 Rockefeller Plaza
Transmitter & Antenna Location Empire
State Bldg. Tower
Time on the AirFull time commercial license

50000-56000 Kg

Personnel

NRC. Vice-President in

TIDO AICC-T TERIOCIII, III	
Charge of Television	John F. Royal
NBC Vice-President &	•
Chief Engineer	O. B. Hanson
Eastern Sales Manager	Reynold R. Kraft
Business Manager	John T. Williams

ACTIVITIES

Still limited by the shortage of engineering talent and the necessity to conserve existing equipment. NBC, nevertheless, considerably increased its program service during 1944. In October, the Network's television station added to its regular schedule boxing bouts from Madison Square Garden on Friday night, During that same month, WNBT also started picking up as a regular Tuesday night feature the wrestling matches from St. Nicholas Arena. In the latter part of the year, NBC broadcast many live talent programs from its newly opened television studio 3-H in Radio City.

Planned operations for the early part of 1945 include live talent telecasts as a regular Sunday night feature. It is expected that WNBT will be on the air five days a week, broadcasting about 10 hours per week.

WPTZ

PHILADELPHIA CHANNEL 3

Frequency: 66.000-72,000 Kc.; Sight, Approximately 2½ Kw.; Sound, Approximately 3 Kw. Effective Signal Radiated... Approximately 335 Owned-Operated By............ Philos Radio & Television Corp.

Business Address.......Tioga and C Sts.
Phone NumberNebraska 5100
Transmitter & Antenna Location...Wyndmoor,
Pa.

Time on the Air: Monday, Wednesday & Friday evenings, 7:45-9:45: Experimental W3XE, Monday through Friday afternoons, 1:30-2:30.

Personnel

Chief Television	Engineer	F. J. Bingley
Station Manager		Walter Merkle
Program Director	·	Paul Knight

WRGB

SCHENECTADY, N. Y.

CHANNEL 3

Personnel

Vice-President and Manager of
BroadcastingRobert S. Peare
Assistant ManagerB. J. Rowan
Manager
Program Manager
Chief Engineer

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, lamtern 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 area. A minimum weekly program service of nine hours is offered viewers in the area.

ACTIVITIES

During 1944 WRGB's program activities have been varied. Among the programs various types have been tried, including a bridge game by champions, dog shows, boxing and wresling matches, barn dances, Shakespearean plays, Gilbert and Sullivan operettas, modern comedies, news reporters and analysts. Several commercials have also been presented by the station during the past year.



Television Allocations

 B_{year} end, the Commission proposed that television and FM channels be reshuffled. Whether television should stay "downstairs" or go "upstairs" was one of the most controversial questions discussed at the allocation hearings.

In order to permit the development of a system for color pictures and higher definition monochrome pictures through the use of wider channels, the Commission proposes space for experimental television between the 480 and 920 mc in the ultra high frequency portion of the spectrum.

Commercial television is permitted to remain roughly where it is in the lower part of the spectrum. Specifically, it now has 18 channels six mc wide at intervals from 50 to 294 mc. The new allocation gives it six channels, also six mc wide, from 44 to 84 mc and six from 180 to 216 mc. This gives television the same number of channels—12—below 225 mc as heretofore. No additional frequencies can be assigned to television between 225 and 300 mc because all these frequencies are required for Government services.

Interests representing FM decried the Commission's proposals and additional hearings were scheduled for Feb. 28, 1945, wherein the FCC would be open to argument on its proposals made earlier. Decision resulting from this hearing was expected to be made known possibly by spring.

The proposals made by the FCC regarding television and made public Jan. 15, 1945, follow:

Commission's Proposals

The Commission is fully convinced that by virtue of the recent developments in the electronic art, a wide channel television broadcasting system, utilizing frequencies above 400 mc, can be developed, and the transmission of higher definition monochrome pictures and high definition color pictures achieved.

The Commission is also convinced that all of the improvements that have been made possible in the transmission and reception of monochrome pictures by recent developments in the electronic art cannot be utilized in the 6-mc television channel. However, the Commission does not believe that broadcast service to the public through the use of a 6-mc channel, with the improvements presently available over pre-war developments, should be abandoned and commercial television held in abeyance until a wide channel sys-

tem in the ultra-high frequencies can be developed and proven. Therefore, we have endeavored to assign to television broadcast as many 6-mc channels below 300 mc as possible in the light of the needs of other services for frequency space in the same part of the spectrum.

Six Channels

We find that there can be made available to television broadcasting, six channels between 44 and 84 mc and six channels between 180 and 216 mc. It will be noted that the frequencies between 225 and 300 mc could not be considered for television broadcasting because all these frequencies are required for government services, and hence the six channels formerly assigned to television in this portion of the spectrum must necessarily be deleted. It will be further noted that

television has been allocated the same number of channels—12 channels—below 225 mc as previously were allocated to that service, but that due to the demands of other services, it was not possible to provide any additional channels for television below 225 mc. It should also be noted that old television channel Number 7 (102-108 mc) is left unassigned at this time and that before making an assignment the Commission will give due consideration to the requirements of television. It is urged that manufacturers of television receiving sets include this band.

The table below shows the 12, 6-mc channels that have been assigned to television broadcasting:

Channel	I	V	0								Megacycles
1 .											44 to 50
2 .											54 to 60
3 .											60 to 66
4.								•			66 to 72
5.											72 to 78*
6 .											78 to 84
7.											180 to 186
8 .											186 to 192
9 .					,						192 to 198
10 .				,							198 to 204
											204 to 210
12 .											210 to 216

Television channels 7 through 12 (180-216 megacycles) will be available temporarily for television relay purposes until such time as these facilities are required for television broadcasting.

On the basis of the foregoing allocations, it will be possible to authorize seven television stations in one city if the need therefore is shown. Four of these stations can be assigned in the six channels below 100 megacycles and the other three in the six channels available between 180 and 216 megacycles.

The portion of the spectrum between 480 and 920 mc (less 508-524 mc temporarily) has been made available for experimental television. The space between 1225 and 1325 mc has been assigned for television relay stations to be used by "pick-up" stations for relaying program material to the main television station for broadcasting. In addition, frequencies between 480 and 920 mc will be available for this type of service until they are needed for television broadcast-The determination of the channel width to be used must wait until the channel requirements of the equipment developed are known.

The testimony indicates that sky-wave interference may be a problem with television broadcasting on the lower fre-

quency channels assigned to this service. It was impossible because of the demands of other services, to find 12 television channels between the part of the spectrum which is believed free of sky-wave interference and 225 mc. Therefore the use of the lower frequency channels appeared to be the only solution. However, should this skywave interference develop, the six channels above 180 mc offer a possible means for alleviating this interference, in that these channels, in time, can be employed for the higher-powered stations, and the low frequency channels reserved for stations that can utilize a limited power for rendering a satisfactory service.

Color Provisions

In order that a television broadcast system may be developed for the transmission of color pictures and superior monochrome pictures through the use of wider channels, the space between 480 and 920 mc (less 508-524 mc temporarily), has been made available for experimental television. The time which may elapse before a system can be developed to operate on wider channels in these ultrahigh frequencies is indefinite and primarily dependent upon the resourcefulness of the industry in solving the technical problems that will be encountered. In this portion of the spectrum it is contemplated that the Commission will license the entire band between 480 and 920 megacycles for experimental television and will not designate any particular channels. Applicants desiring to operate in this portion of the spectrum should consult with the Chief Engineer as to the exact frequency band they should utilize.

It is the hope of the Commission that all persons interested in the future of television will undertake comprehensive and adequate experimentation in the upper portion of the spectrum. The importance of an adequate program of experimentation in this portion of the spectrum cannot be over-emphasized, for it is obvious from the allocations which the Commission is making for television below 300 megacycles that in the present state of the art the development of the upper portion of the spectrum is necessary for the establishment of a truly nation-wide and competitive television system.

Space Demand Great

As has been stated in other portions of this report the demand for space in the spectrum is so great that each sta-

TELEVISION ALLOCATIONS

tion and service is expected to make the best usage of its facilities and one of the underlying principles is that where within a reasonable time a particular station or service has not made full usage of its assigned or allocated facilities consideration would be given to the needs of others. Cognizance is taken of the fact that even a single television channel requires more spectrum space than is assigned to all the stations of some other services. Therefore, while television stations will be licensed as at present on an unlimited time basis, if after a reasonable period licensees are not using the facilities sufficient to warrant an unlimited assignment, consideration will be given to applicants for all or part of the time.

In order further to conserve facilities, the Commission, in the case of Television Channels 1, 2, 3, 4, 5, 9, 10, 11, and 12, proposes that provisions may be made for the operation of non-governmental fixed or mobile services on these channels upon a proper showing of need and that these channels may be shared on a non-interfering basis. Similar provision is being made for the sharing of Television Channels 7 and 8 with governmental fixed and mobile services.

* Arrangements must be made for the removal of the aviation markers centering on 75 mc. before this band will be available for television.

* * * Theater Television * * *

THE proposed use of radio for theater television is intended to provide facilities whereby news, sporting events, operas, and other events can be televised and shown to the general public on largesize screens such as are normally used in motion picture theaters. It was claimed at the hearing that the motion picture industry has a definite and legitimate interest in television, since the industry is in the business of producing popular entertainment and presenting news through visual and aural means. It was estimated that over 85 million persons attended motion picture theaters weekly, and that the industry has a gross annual income of approximately \$1,600,-000,000 (Tr. 3713-3716).

It was stated that the major companies in the motion picture industry have indicated that, at the end of the war, or as soon as wartime requirements permit, they will begin experimentation with the production and exhibition of theater television programs in specific local theaters, and with the transmission of such programs, to theaters in distant cities. Certain experiments were conducted prior to the war which indicated that theater television might be feasible. Large screen theater television on 15 x 18 ft. screens were shown in London during the year 1939, and were subsequently demonstrated experimentally in two theaters in New York City in 1941 on screens 15 x 20 ft. Further experimentation with theater television was discontinued after the

entry of the United States into the war (Tr. 3715).

The witness for theater television was Mr. Paul J. Larsen (Tr. 3711-3755), who appeared on behalf of the Society of Motion Picture Engineers.

The number of channels requested was predicated on the possible demand for service in New York City. It was claimed that there were 42 competitive theatrical agencies in operation; however, it was believed that because of economic factors, only 25 of the 42 agencies could afford to enter the theater television field. For the initial postwar period experiments in theater television, it was recommended that frequency allocation be made for 15 producing or exhibiting agencies in an area such as New York City, each agency to produce and distribute one theater television program to specific local theaters and to relay this program to specific distant theaters. This would require three classes of stations or services, a follows:

- 1. Intra City Studio Transmitter Station:
 - (a) 1 fixed studio to transmitter channel (point-to-point).
 - (b) 1 clear mobile channel (remote pickup).
- 2. Intra City Multiple Addressee Station:

1 clear channel for private multiple-directive transmission from a single transmitter to a group

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of specific addressees within the service area of the transmitter.

3. Inter City Relay:

1 channel to interconnect cities, for transmission of theater television programs simultaneously from a number of specific multiple address stations to a specific theater or theaters in different cities.

The requests for frequencies for theater television service include a total of 1500 megacycles in 75 20 megacycle channels as follows:

- 1. 8 contiguous 20 mc. clear channels or a band of 160 mc. from 600 to 760 mc.
- 2. 7 contiguous 20 mc. clear channels or a band of 140 mc. from 860 to 1000 mc.
- 3. 15 contiguous 20 mc. clear channels or a band of 300 mc. from 1900 to 2200 mc.
- 4. 15 contiguous 20 mc. clear channels or a band of 300 mc. from 3900 to 4200 mc.
- 5. 30 contiguous 20 mc. clear channels or a band of 600 mc. from 5700 to 6300 mc.

Postwar Presentation

It was stated that theater television in the immediate postwar period would undoubtedly be presented to the public in monochrome, possibly using the present television standard of 525 line definition. It was also claimed that improved picture quality in monochrome comparable to 35 millimeter motion picture film, and also the addition of color will undoubtedly be required if theatrical television presentations are to meet with public acceptance on a basis comparable with present motion picture film presentations. It was claimed that for a transmission of monochrome television, a band width of 20 megacycles would be required which would be suitable for 525 to 800 line definition. For monochrome of higher definition and for color transmission, a channel width of 40 megacycles would be required. This would permit a definition in monochrome comparable to the present 35 millimeter film definition and for three-color transmission of approximately 750 line definition. It was stated that ultimately the theater industry would employ highly directive antennas and then would not require any frequencies below 10,000 mc. except in very rare cases where the terrain, for instance, would make it impossible to use frequencies above 10,000 mc. However, since it was questionable whether such transmitting and receiving equipment would be available immediately in the postwar period, requests were made for frequencies below 10,000 mc. in order to permit immediate experimental operation of the proposed service (Tr. 3725-3732).

No Specific Allocation

Since theater television is still in the experimental stage of development, the Commission does not propose to allocate any specific frequencies at this time. However, the Commission will give consideration to applications for experimental authorization involving transmissions, including studio to transmitter, remote pickup, and intracity multiple address stations, on the frequencies between 480 and 920 megacycles allocated to broadcasting on the basis that the use of these frequencies will be discontinued when needed for the broadcast service. In addition, experimentation with intra- and intercity relay of theater television programs may be authorized in the following bands of frequencies, namely, 1900-2300, 3900-4550. 5750-7050, 10500-13000, 18000, and 26000-30000 megacycles, as discussed in section 19 of this part.

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Secretary-Treasurer	Will Baltin
Assistant Secretary-Treasurer	O. B. Hanson

Directors

Dr. Allen B. DuMont, Allen B. DuMont Laboratories, Inc.; F. J. Bingley, Philco Corp.; Curtis W. Mason, Earle C. Anthony; Jack R. Poppele, WOR, New York; Emerson Markham, General Electric.

Functions

Founded Jan. 1944, as a non-profit organization of television broadcasters and others engaged in any business directly connected with television broadcasting. Objects, as stated in the by-laws, 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."

TELEVISION FACTS AND FIGURES

PROBABLY destined to go down in history as the most revolutionary contribution to the field of entertainment of our time, television will also have its place in public service and education. Facts and figures given below are presented from the general viewpoint rather than the technical side, in order to reflect the activity in this new art form during the past year.

NINE commercial television stations are now operating in the United States: three in New York City; two in Chicago; one in Schenectady; one in Philadelphia; two in Hollywood.

112 applications for television stations were pending before the Federal Communications Commission in Washington as of March 15, 1945.

27 stations licensed to conduct experimental television broadcasting are now operating in the United States.

Cost of postwar television receivers will range from \$150 for the smaller projected image models to \$750 for de luxe receivers which will include AM and FM radio in their cabinets.

First television network was established the past year linking stations in Philadelphia, New York and Schenectady.

Estimated cost of television station equipment (pre-war cost basis) range from \$250,000 to \$300,000 and includes studio, equipment, field pickup equipment, installation, sound, lighting, etc.

Paramount problem of television at the moment appears to be production with two schools of thought on "live" and film video shows.

Television Broadcasters Association, with a membership of 38 companies associated with the industry, is the leading trade organization.

Experts forecast use of relay or booster stations in development of television networks.

Several eastern seaboard organizations are experimenting with networks. These include General Electric, International Business Machine, Raytheon, American Telephone and Telegraph Company and Radio Corporation of America.

Leading advertising agencies have established television departments but regard video programming at this time as having only experimental value.

TELEVISION FACTS AND FIGURES

Industry is awaiting final allocations of FCC and end of war for immediate commercial development of video.

Labor troubles right now loom as the drawback of the immediate future, with the AFM already making it tough on the use of musicians and other organizations preparing jurisdictional disputes.

Theater tele may well be on a subscriber basis so that special programs and events will go to those who subscribe only.

Programming in television was and is active in the five centers actively engaged in experimental and commercial television. Desire for experience and finding out what not to do is one of the chief objects at present.

Estimated that there are some 7,500 television receivers extant, of which 5,000 are in the New York metropolitan area. Not a few sets have been placed in veteran hospital convalescent wards.

Major sports have been televised with unusual success, especially football and boxing. Wrestling has already proved itself one of the easiest to televise and one of the most entertaining shows for the televiewers.

That color television is on the way, is now not denied in any quarter; it is agreed however that it will take quite a while yet before it is perfected.

At least five companies have announced their intention of providing television relay facilities after the war. The relay system has proven itself satisfactory more ways than one and for the past five years has carried television programs from New York to Schenectady, a distance of more than 150 miles.

That the television special event source will be and is right now plentiful, was indicated in a survey which revealed nearly 50 auditoriums and arenas, also various cultural centers in New York alone where tele programs could be picked up, with a large ready-made audience. In the Los Angeles area, 16 seasonal events suitable for tele pick-up, and more than 25 events that take place regularly each year. All these are of national interest. Chicago and other tele centers to-be have equally strong prospects.

Curiosity centers on what the British are doing in television and just how far they were advanced at the beginning of the war and just where they have taken up. In Paris, 1000-line tele was reported by various Americans who have been abroad.

Giant strides forward are expected in television as a result of electronic research for the war effort and uses of tele by the military, still a guarded secret as to its development, but generally acknowledged to hold the key opening the door toward perfection.

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