TELEVISION STATUS AND TRENDS

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INTRODUCTION

The aim of advertising is to get the maximum number of fulfilled buying impulses per advertising dollar. Let us call this new unit of advertising effectiveness "FBI's per $". As might be imagined, it involves tracking down the prospective consumer and, after having brought him to bay, leading him to the merchandiser and observing his acceptance of the advertised product.

FBI's-per-$ depend on these factors:

- potential audience coverage of the medium
- purchasing power of the audience coverage
- portion of purchasing power of the audience coverage potentially interested in the advertised product
- sponsor identification by the audience
- product identification by the audience
- psychological response to the arguments in favor of the product
- as suggested above, the need of each potential consumer for the product in question.
- the availability of the product in the market area of the potential consumer,
- and so on.

Clearly FBI's-per-$ are a complex matter depending on many - and partly unmeasurable - factors. It will probably take decades for research workers to evolve satisfactory methods for determining each of these factors, their interrelationships, and their conjoint effects.

The data submitted are derived either from the experience and files of the writer, or have been secured by the collaboration of a number of his colleagues whose help is gratefully acknowledged. However, any analyses or conclusions here presented are solely the judgment of the writer, and do not necessarily agree with the opinions of the corporations, or societies, with which he may be industrially, or professionally, associated.

GROWTH OF TELEVISION STATIONS

Of late, the total number of operating stations, the number of granted construction permits, and the number of station applications placed before the FCC have all increased rapidly. In FIGURE I there is shown the corresponding growth of operating stations from 1947 to 1951 (for January 1st of each year). It is instructive to note that, even in 1949, no other country on earth had more than three operating television stations. England, second nation in television, has about 100,000 television receivers against five times that number in the New York City area alone, or thirteen times that number in the United States. Here then, is an instance of the amazing stimulus which American free enterprise can give a new and important industry.

The stations in existence on January 1st of 1949 through 1951 will blanket an area in which are located the percentages of total United States families shown in FIGURE 2. And in FIGURE 3 is shown the cumulative production of television receivers by January 1st of each year from 1948 to 1954. This has all the elements for providing America with the greatest known advertising, entertainment, and cultural medium.

TELEVISION BANDS

The present television broadcasts are carried out on a group of twelve channels, on frequencies in the neighborhood of 50 to 200 megacycles – the so-called "lower band" - referred to by engineers and the industry as "VHF", (meaning "very high frequencies"). It has recently been proposed that additional channels, in the neighborhood of 500 to 900 megacycles, should also be opened for commercial television broadcasting. These ultra-high-frequency (UHF) channels may be referred to as the "higher band". The FCC has under consideration the opening of the higher band to commercial television operations. A temporary "freeze" in the granting of television station licenses was initiated in the Fall of 1948 by the Commission, and has led to the temporary discontinuance of the issuance of construction permits for *new* stations on the lower band. Those already holding construction permits will receive station licenses as fast as their stations are completed, so that the total number of stations on the present lower band has almost doubled since the beginning of the "freeze" on September 30, 1948.

The 202 stations, to be in operation by 1951, (as shown in FIGURE I), are all in the present "lower band", wherein service is to be continued regardless of whatever additions may be made in the upper band.

The "freeze" may be lifted in the late spring or early summer of 1949, judging from present indications. It is likely that a number of additional channels in the higher band will be opened for development or experimentation at that time or later. And at that time the Commission will of course resume the processing of station applications now before it for commercial operation on the present lower band. It is in anticipation of this action that the total of 202 lower-band stations by 1951 was here presented.

UPPER BAND DEVELOPMENT

It is likely that the Commission will authorize continued experimentation in the UHF or upper band with the purpose of the ultimate establishment of commercial service in the upper band, in addition to the continuance of the present lower-band operation. There are many engineering problems which must, however, be solved before dependable commercial upper-band service is possible so that in time smaller cities and towns, which at present have few or no television channels, will receive such facilities. The larger cities which at present have a limited number of lower-band allocations may be provided with both higher-band and lower-band channels, thus increasing their television broadcasting opportunities as well. One pertinent factor in this connection is the desirability of promptly providing network connections in as many locations as possible, so that the major programs syndicated over these networks may be at the disposal of the then operating stations and thus reach the maximum portion of the population of the United States.

AREA OF COVERAGE

It appears that the major portion of the American population will enjoy television service at the end of the next five years. Further, the present economic standing of the television audience is higher than the average - although this statement must be qualified by adding the comment that television receivers are now found in the more humble American homes, and will continue to be so to an increasing extent. It is enlightening in this respect to observe the large number of television antennas installed in the less prosperous sections of cities having television service. Clearly, television is destined to be a major medium for mass advertising.

The net effective buying income of families within the areas provided with television service, as of January 1st for the three years beginning in 1949, is illustrated in FIGURE 4.

THE DIFFERENT TYPES OF STATIONS

The term "television station" is a flexible one. The simplest type of station operation is that of a so-called "satellite" station. Such a station simply repeats the programs of another nearby "master" station, thus effectively extending the coverage of the latter station. That is, whatever programs are sent from the master station to a satellite station are automatically repeated without modification, and are thus broadcast to an additional portion of the population in the "fringe area" of the master station. Such satellite stations would normally be of low power.

The advantages of satellite stations are their relatively low initial cost and limited operating expenses, as well as the simplicity of their operations. Their disadvantages include the unavailability of any local origination of programs by them, and the consequent limited service which they can give to the particular interests and local businesses of their community.

The next larger type of station operation is that of a "repeater" station. This is a station which customarily repeats, without modification and automatically, the network programs which reach it. Such a repeater station is necessarily provided additionally with a film projector, thus enabling local and chain-break announcements, as well as the use of syndicated film programs. It may possibly also be provided with means for broadcasting at least the voice (if not the picture) of a local announcer.

Passing to a still larger type of station, a means for picking up remote events in the local community may also be provided. Such pickup facilities may be on 16-mm. film cameras, whereby there are produced motion pictures of local events, which may later be broadcast from the television station. Alternatively, television cameras may be used for remote pickup, the events being broadcast as they happen. The two methods may even be combined by means which need not be here described.

The film cameras have the advantage that events occuring in the daytime may be transmitted to the maximum audience at night, and also that such events may later be repeated, if desired, at other times. Further, the films may be judiciously cut and edited. The advantage of the television-pickup cameras is that they may alternatively be used in the local studios of the station for picking up actual live-talent programs (for example, during the evening hours). There is a certain degree of flexibility and economy in this dual use of television cameras for daytime remote pickups, and for nighttime live-talent or studio programs. Other flexible methods of operation using film cameras, television cameras, or both are also possible.

From this point on, television stations may have any added and desired degree of elaboration. The two camera chains, so-called, for remote pickup and relaying cost approximately $60,000. Studio equipment, including camera chains, control room equipment, master control equipment, additional 16-mm. film projectors, 35-mm. film projectors, and the like, add substantially to the cost of the station. In fact, major television stations may have a cost in the range of $150,000 to $600,000, averaging about $300,000. Still more important program-originating key stations, such as those which would normally be established by a national network, may have a first cost in excess of $1,000,000.

BROADCASTING COSTS

The owner of a television station must also be prepared, initially at least, to carry the operating costs of so impressive an enterprise. Excluding the cost of the actual programs (that is, writers, actors, directors, musicians, and the like), the operation of a station involves the maintenance of extensive facilities and of a substantial staff of skilled technicians and commercial workers. A major station may have an annual operating cost in the range of $100,000 to $500,000 with an approximate average of $200,000. The trend of station operating costs is not expected to be downward.

ANTICIPATED GROWTH OF NETWORKS

In any medium in which program and operating costs are substantial, it is important that the maximum possible audience shall be simultaneously reached by each program. Since the dependable coverage or service area of individual television stations is limited to distances of between 25 to 65 miles approximately, service to large portions of the population is most readily accomplished by some form of syndication. The networks of today may be described as being intermediate between regional and fully national networks. They cover the north-eastern and north-central portion of the United States effectively, but have not yet been extended to the south and west. Data on the stations presently affiliated with each of the major existing networks, namely, the National Broadcasting Company, the Columbia Broadcasting System, the American Broadcasting Company, and the DuMont Television Network are of interest.

As of March 15, 1949, (based on information kindly supplied by the four networks) NBC has five owned and operated stations, eighteen primary affiliates, and six secondary affiliates.

CBS has two owned or partially owned stations, twelve primary affiliates, and fifteen secondary affiliates. For ABC, the corresponding figures are three owned, four primary, and fourteen secondary affiliates. The DuMont Network including Paramount Stations, included three owned and operated stations, one primary affiliate, and twenty-two secondary affiliates.

Thus the total of owned and primary-affiliated stations is four for DuMont, seven for ABC, fourteen for CBS, and twenty-three for NBC. It is a natural assumption that television-network affiliations will eventually largely follow corresponding present radio affiliations. Meanwhile, many network alliances or working agreements have been made through the need for securing programs at times when connections are unavailable to the network of primary affiliation. This largely accounts for the multiplicity of network arrangements presently in force. However, the trend toward the resumption of normal network affiliations is believed to be as stated.

Although certain network links have been privately provided (for example, between New York, Washington, and Schenectady), network connections are substantially handled through the American Telephone & Telegraph Company. The present coaxial-cable and radio-relay links of that Company have been shown in FIGURE 5. The anticipated networks to be established within the next few years by the Telephone Company are shown in FIGURES 6 through 10. Such connections should be well-advanced by 1953, thus enabling coast-to-coast syndication of television programs at that time.

USE OF NETWORK FILMS

A second possible and important method of television syndication involves the use of sound motion-picture film. This may be of several different types including kinescope recording, direct photography of a studio program, or standard available or specially prepared motion-picture films. The program, recorded on film, is used by the outlet stations at predetermined times. Such film programs can thus be syndicated locally or nationally. They have a number of advantages. For example, film syndication enables existing networks to extend their services to affiliated, but as yet unconnected stations. Regional syndication can be flexibly accomplished. Certain programs of outstanding quality or of historical interest, if recorded on film, may be repeated at will. In addition, editing, selection of the preferred performance, and the avoidance of possible unforeseen program errors, with correspondingly improved program quality, can generally be attained by film syndication. On the other hand, high-quality film syndication adds to program production costs and may somewhat delay the availability and utilization of a program. Further, it naturally involves skill and experience in the handling of film if the best results are to be consistently secured. In this relation, it should be noted that network connections are required for programs of transcendental and urgent importance or of particularly timely interest. Given the availability of such interconnection, the inducement to use film for reaching the outlet stations becomes less than would otherwise be the case.

Where the highest pictorial quality, maximum flexibility in the selection of program material, and guaranteed correctness of performance is required, as in the case of major commercial announcements and their accompanying visual material, film has won rapidly increasing and deserved acceptance.

Taking all pertinent factors into consideration, it is clear that film programs will continue to play an important and basic part in local, and even in network operations, and for both program material and commercial announcements.

In this connection it may be mentioned that 35-mm. film may be used where the picture and sound must be of exceptional quality. However, 16-mm. film has proved adequate for most routine program-syndication operations at the present time. Its everyday quality under present conditions is generally marginal. The relative advantages of these various sizes of film would require a more lengthy analysis than can be given here.

For all practical purposes, 16-mm. film may be considered standard for today because of its lower cost, ready availability of 16-mm. station equipment, and freedom from regulatory restrictions such as apply to inflammable 35-mm. film installations. When 35-mm. film becomes available in safety stock, this situation may alter.

KINESCOPE FILM RECORDING

The simple method of producing film transcriptions of television programs is to photograph the transmitted picture on a monitering kinescope tube by means of a 16-mm. motion-picture camera of special design, recording the sound portion of the program on the same or a separate film. Any desired number of release prints can be then produced from the original negative or positive, and sent to the desired outlet stations. At present, the cost of kinescope film recording per hour is about $360 (or less) for the original negative, and $108 per hour for each release print. This cost is additional to program and station-time costs.

The various networks are using kinescope recordings of their programs to a considerable extent at present. The National Broadcasting Company records approximately three hours per day, on the average, and the Columbia Broadcasting System two hours. The other networks record to a variable extent.

DIRECT PHOTOGRAPHY

Another method of producing a film version of a program is to photograph a dress rehearsal or similar performance using, however, conventional motion-picture methods. That is, each scene is separately photographed, and usually not in the order of presentation. The recorded film negative is cut, edited, and assembled. Essentially, this method is thus similar to the usual motion-picture technique.

Film programs, produced in this fashion, have a wide range of costs. Thus, a twenty-minute show may cost from $3,000 to $5,000 for the original negative; $4,000 to $6,000 for a thirty-minute show, and $6,000 to $10,000 and up for a one-hour program.

Commercials, or announcements, similarly photographed, but with even more elaborate techniques, including animations, will range from $100 to $5000 per minute of playing time, the last figure, of course, being very unusual.

ROAD SHOW COMPANIES

Two other methods of television syndication have been proposed. One of these is the use of road-show companies. Here the actors, directors, and sets would be physically transported from city to city, and their "standard" or repertoire programs would be presented at the local station. This method has, as yet, not found any commercial acceptance. An entirely different syndication method, based on certain technical novelties, is "stratovision". (See appendix.)

* * * *

THE ADVERTISER'S TIME COSTS PER STATION

The sponsor of television advertising purchases station time and defrays program costs. In the tabulation of FIGURE 11 are shown typical or average station-time costs at present, for periods from five minutes to one hour. These costs are subject to modification on a multiple-use basis, and also include agency commissions. They apply to live-talent evening performances, and may include a moderate amount of rehearsal time. In FIGURES 12 and 13 are shown the average gross time rates for film and studio programs. In general, film presentations over a station have a lower time cost than studio presentations. A usual present-day ratio of studio to film-transmission costs is approximately 7-to-6. It must be stressed that transmitter costs are equal in the two cases, and form the major item. Remote pickup costs, on the other hand, frequently exceed studio operational costs because elaborate equipment and extensive personnel must necessarily be moved to outside locations. Their cost is so variable that no dependable general figure can be given.

NETWORK COSTS

Average (per station) gross time rates on the present networks, for one hour of evening time, are given in the tabulation of FIGURE 14. The corresponding gross hourly time rates for each of the entire networks are shown in FIGURE 15.

Television network-time costs as compared with sound radio, are based upon higher capital investments, increased operating costs in a ratio of about 4-to-1, larger production crews in about the same ratio, and intercity connection costs of about seven times those of sound radio.

As previously mentioned, programs fall into a number of major groups. Live-talent performances, including drama, variety, and the like, and presented in the station studios, form one major type. Remote pickups of interesting happenings, such as sports events, national conventions, and the like, are a second type of program of proven popularity. Films of various types are utilized. At present, these are either available feature films or shorts, or else entertainment or educational films expressly made for television. American-made feature films now available for television are largely "Westerns" of ancient vintage. A limited number of imported films of better quality have recently been released for television. However, the former type predominates because of its ready availability and lower cost. Accordingly many of the existing films released for television use do not reach the desired standards of showmanship and technical quality and do not do justice to that medium. Films made especially for television are increasing in number and in quality. And, as stated, the use of film for commercial announcements has increased even more rapidly. In at least one instance, films of dramatic performances, made especially for television, are syndicated over a network. Percentages of time devoted to studio, film, and remote programs are shown in FIGURE 16, as averaged for a group of stations in large and small cities. More recently, remotes have declined; studio program percentages have increased; and film program percentages have remained essentially constant as an apparently stable element in program construction.

The trend of preferences between these types of programs is not as yet well-defined, and will doubtless fluctuate, from time to time, as public tastes alter.

One special type of proposed film program is known as "phonevision", which is discussed in the appendix.

* * * *

TYPES OF RECEIVERS

The television audience today uses various types of receivers which may broadly be described as follows. The simplest type of receiver is portable, produces a picture a few inches wide, and may be viewed by at least one to three people at a distance of two to five feet. Table models produce a picture ranging from eight to thriteen inches in width, normally viewed at, say four to nine feet by optimum audiences of two to six people or more. Console receivers, giving a direct-vision picture, have a similar range of picture sizes, except in the higher price brackets, where the pictures may range from thirteen to fifteen inches in width. Pictures are viewed at four to twelve feet, in general, and by at least three to nine people. Console receivers, with projected pictures, show images from sixteen to twenty inches in width. These pictures may be most conveniently viewed at distances of eight to twenty feet by five to twenty people or more. It will be understood that the listed viewing distances, and the audience sizes, are only roughly approximate, and may readily be exceeded.

RECEIVER COSTS

The cost of receivers varies widely, depending in part upon cabinet size and workmanship, general performance, picture size, and other factors. Portable receivers center in the $150 to $200 range. Table models fall broadly in the $250 to $350 range. Direct-Vision console receivers (without radio-phonograph adjuncts) fall in the $300 to $600 range, in general. The projector type of console receivers usually cost from $800 up.

The audience, everything else being equal, prefers the larger picture sizes, although it will accept with enthusiasm pictures of moderate dimensions whenever cost is a controlling factor. Pictures of good brightness and sharpness are also desired. As matters stand, there is a slight trend toward lower receiver costs, although it is unlikely that the drop in television receiver costs will be as drastic, or in anything like the same ratio, as was the case for the drop in costs of standard radio receivers during the period from 1920 to 1940. This results from the inherent circuit complexity and number of tubes in television receivers, as well as the fact that their construction already embodies the economies resulting from thirty years of mass radio production and "know-how".

INCOME DISTRIBUTION OF RECEIVERS

It may be mentioned that, as previously indicated, television receivers, despite their appreciable cost, will definitely not be restricted in use to the "carriage trade". It is found that on the average, television receivers in New York are distributed among persons of four economic levels as follows: 10% among families of highest economic level; 35.6% among persons of the upper-middle strata; 40.8% among the moderate level, and 12.7% in the lower level. The total estimated number of television receivers for 1949 to 1954 has already been shown in FIGURE 3.

CURRENT CIRCULATION

The present estimated audience in each of the ten leading "television cities" of the United States is given in FIGURE 17. In the following FIGURE 18 is charted the gross time cost per thousand sets per hour. Comparison with other media will naturally be of interest.

* * * *

ADVERTISERS USING TV

The response of advertisers to television is clearly illustrated in FIGURE 19 depicting the total number of advertisers using television from June, 1947, to December, 1948. (By March, 1949, this number had risen to beyond 1100.) The gross expenditures for television time had accordingly risen in January, 1949 to the values shown in FIGURE 20, respectively for network, local, and spot programs or announcements.

SALES IMPACT OF TELEVISION

It is generally agreed that any medium which simultaneously employs the powerful agencies of sound, sight, and motion has maximum appeal and message-carrying capability. For these reasons, television advertising has shown an unusually high proportion of sponsor identification. Typical figures for percentages of sponsor identification by television, in large cities, are shown in FIGURE 21.

The approximate ratio of such identification to that obtainable by standard broadcasts is about two-to-one. It is to be expected that the sales impact of a television program would similarly show a high ratio to that of less favored and not so impressive media, of less diversified appeal.

OTHER FACTORS

* * * *

There are some interesting television matters which may justify further study or investigation. One of these is the relative mobility of the television audience as between competing stations or networks. Some have believed that the television audience tends to concentrate to an unusual extent on the most interesting program submitted to it at a given time, and even to the practical exclusion of attention to all other concurrent programs. This conclusion is doubtful. While the relative qualities and appeals of competing programs do seem to sway the television audience and control its viewing, there is, nevertheless, a certain established "natural ratio" into which the audience divides itself, as between the stations and networks available to it. This natural ratio is displayed in the case of events carried simultaneously on all stations in a given locality. It is, therefore, more likely that investigation will disclose that the division of a television audience between stations will be dictated jointly by the natural ratio already established and also by the popularity or appeal of the particular programs under consideration.

It would be beyond the scope of this brief summary to discuss such additional topics as color television, stereoscopic or three-dimensional television; stereophonic or three-dimensional sound in television, and theater television. The last of these is most advanced, but suffers from difficulties in the establishment of an acceptable program service. Nevertheless, it may well be that theater television will ultimately have interesting commercial aspects, and that it may become commercially successful after it has established mutually helpful relationships with television broadcasting.

It may be added that experts in advertising and promotion are fortunate in having the unique opportunity to display their energy, ingenuity, and resourcefulness in so interesting and potentially predominant a medium as television broadcasting.

APPENDIX

STRATOVISION

According to this system, airplanes are arranged to carry both radio-relaying equipment and television broadcasting equipment. The airplanes would be stationed across the United States over points 400 to 600 miles apart, and hover, so to speak, over their landing fields at a height of perhaps five miles. The syndicated programs would be sent up from the studio and transmitter of origin to an airplane and thence would be automatically passed across the country from each airplane to the next, the transcontinental syndication thus being instantaneous. The television broadcasting equipment on the planes would send out the syndicated program to all points within a circle of 200 to 300-mile radius around the airplane location. This transmission would be carried out on the normal television channels, although the radio-relay system on the planes would operate on suitable higher channels not open to general public reception.

Stratovision, as previously proposed, would require extremely high reliability of operation of the airplanes in all types of weather. Careful and continuous adjustment of the relaying equipment would be needed, particularly in relation to directional transmission and reception. A sufficient number of airplanes must be provided at each landing field to keep an operating plane and a stand-by plane in the air at all times, and also to provide extra planes which would fly into sections of the country where unfavorable weather conditions prevented the use of the local-station airplanes. Further, the use of any regular television channel by a stratovision plane would presumably interfere with and prevent its use within a large area surrounding its location, thus limiting the operation of local television stations on the ground. The propagation and reception of waves from airborne television transmitters would require further field testing to determine the nature and degree of reliability of the resulting service. Accordingly, while stratovision presents an interesting and ingenious proposed solution for television syndication, nevertheless, in its present status, it does not permit final conclusions to be drawn as to its ultimate commercial usefulness and its economic and operational feasibility.

In this connection, only a few days ago it was stated in the trade press that the President of the Westinghouse Electric Corporation, proposer of stratovision, had announced the suspension of this project for an indefinite period.

PHONEVISION

By this method a major feature film, made for television and perhaps then released to the theaters, would also be transmitted on a television channel in such fashion that its reception on an ordinary receiver would be unpleasant or unintelligible. The owner of a television receiver might, however, subscribe to the phonevision service in which case he would receive over his telephone line, and without interference with his normal telephone service, a special signal which, when applied to his radio receiver, would automatically steady the received picture and thus again make it enjoyable. For this service, the subscriber would pay the phonevision company a specified amount per evening or per program, which it in turn, would share with the film producer.

So far as is known, no company is as yet engaged specifically in phonevision commercialization. The successful establishment of a "private" or "narrowcasting" television service of this type may involve a number of factors, including the following. The Federal Communications Commission would be required to set aside, in each locality, one or more of the much-sought television channels now devoted to free television service to the general public, and to convert such channels to a private service unavailable to the public except upon payments acceptable to the television station owner, or his associates or agents. This would constitute a sharp break from long-accepted American broadcasting traditions and practices. There would also be needed a steady flow of phonevision program material of quality, appeal, and variety clearly superior to that offered over free television channels - a difficult set of requirements in an era of attractive and steadily improving public-television program quality. An adequate portion of the television set owners would have to be prepared to pay time or performance charges to a total amount yielding a sufficient profit over program-production costs, station and transmitter operating charges, other incidental expenses, and general overhead. It is interesting to note that those who pay for a "private" television service such as phonevision will, however, continue also to absorb their portion of the costs of public television broadcasting through their purchases of the commodities and services advertised by television.

LIST OF FIGURES INCLUDED

FIG. 1

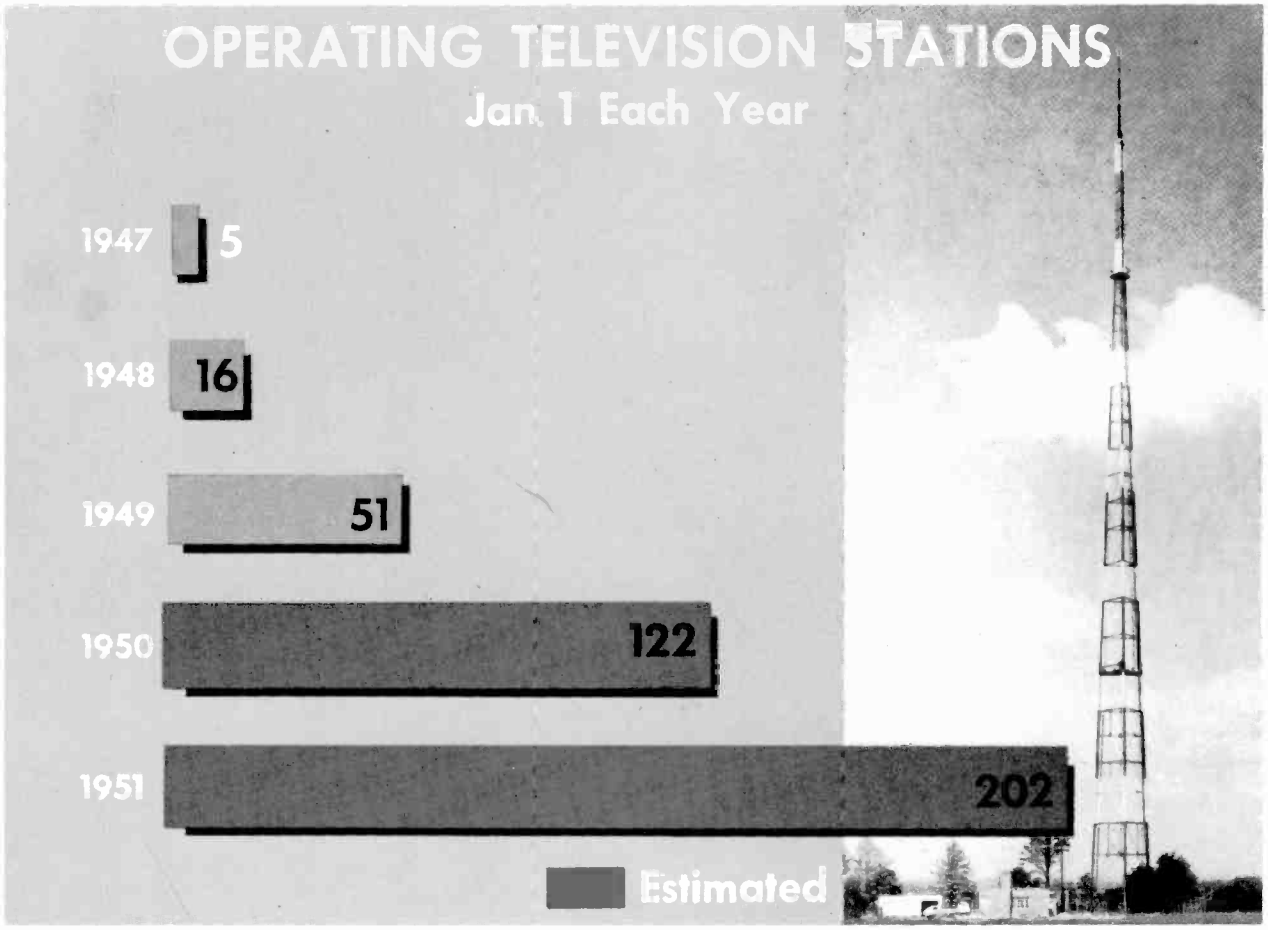

OPERATING TELEVISION STATIONS
Jan. 1 Each Year
1947
5
1948
16
1949
51
1950
122
1951
202
Estimated

FIG. 2

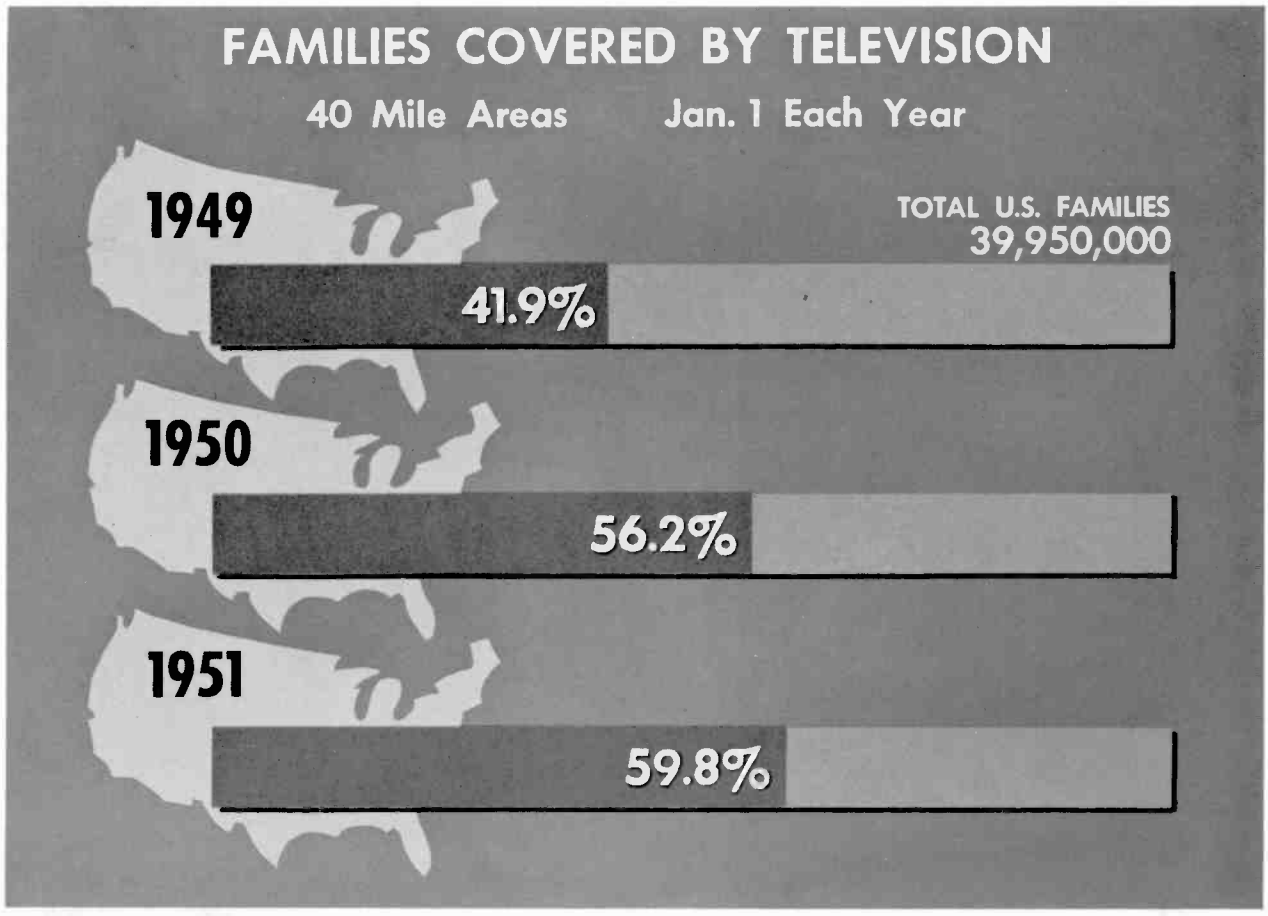

FAMILIES COVERED BY TELEVISION
40 Mile Areas
Jan. 1 Each Year
1949
TOTAL U.S. FAMILIES
39,950,000
41.9%
1950
56.2%
1951
59.8%

FIG. 3

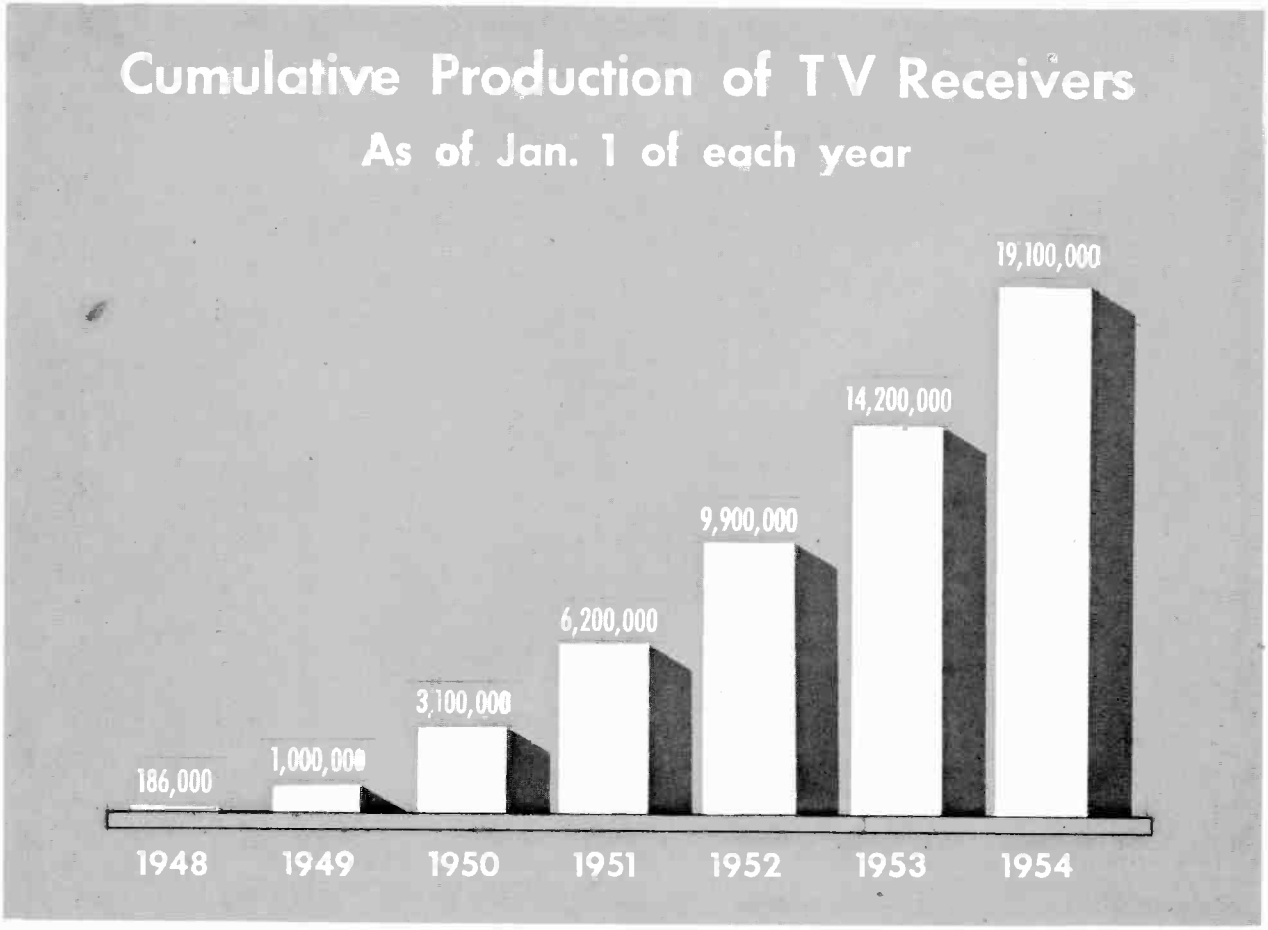

Cumulative Production of TV Receivers
As of Jan. 1 of each year
186,000
1,000,000
3,100,000
6,200,000
9,900,000
14,200,000
19,100,000
1948
1949
1950
1951
1952
1953
1954

FIG. 4

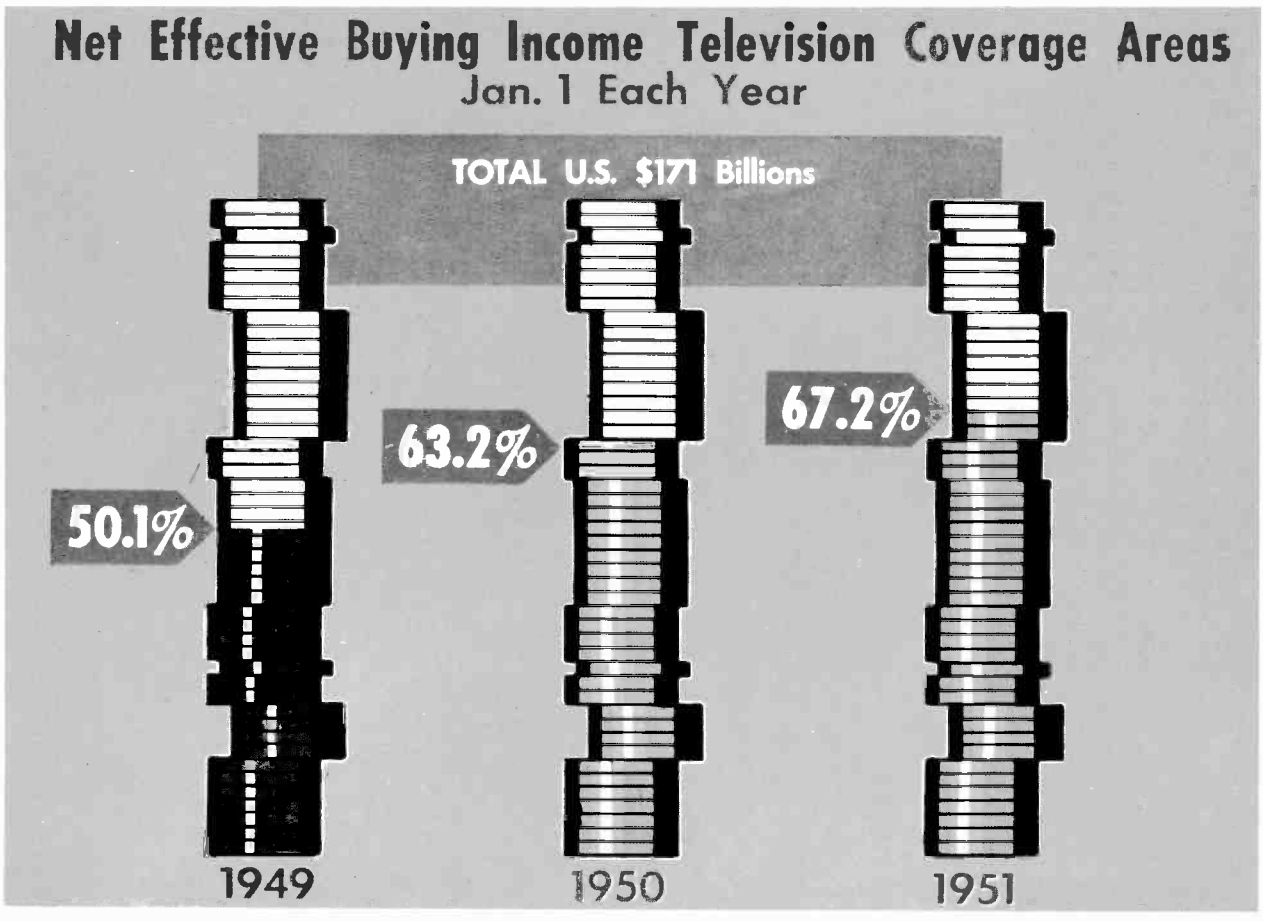

Net Effective Buying Income Television Coverage Areas
Jan. 1 Each Year
TOTAL U.S. $171 Billions
50.1%
63.2%
67.2%
1949
1950
1951

FIG. 5

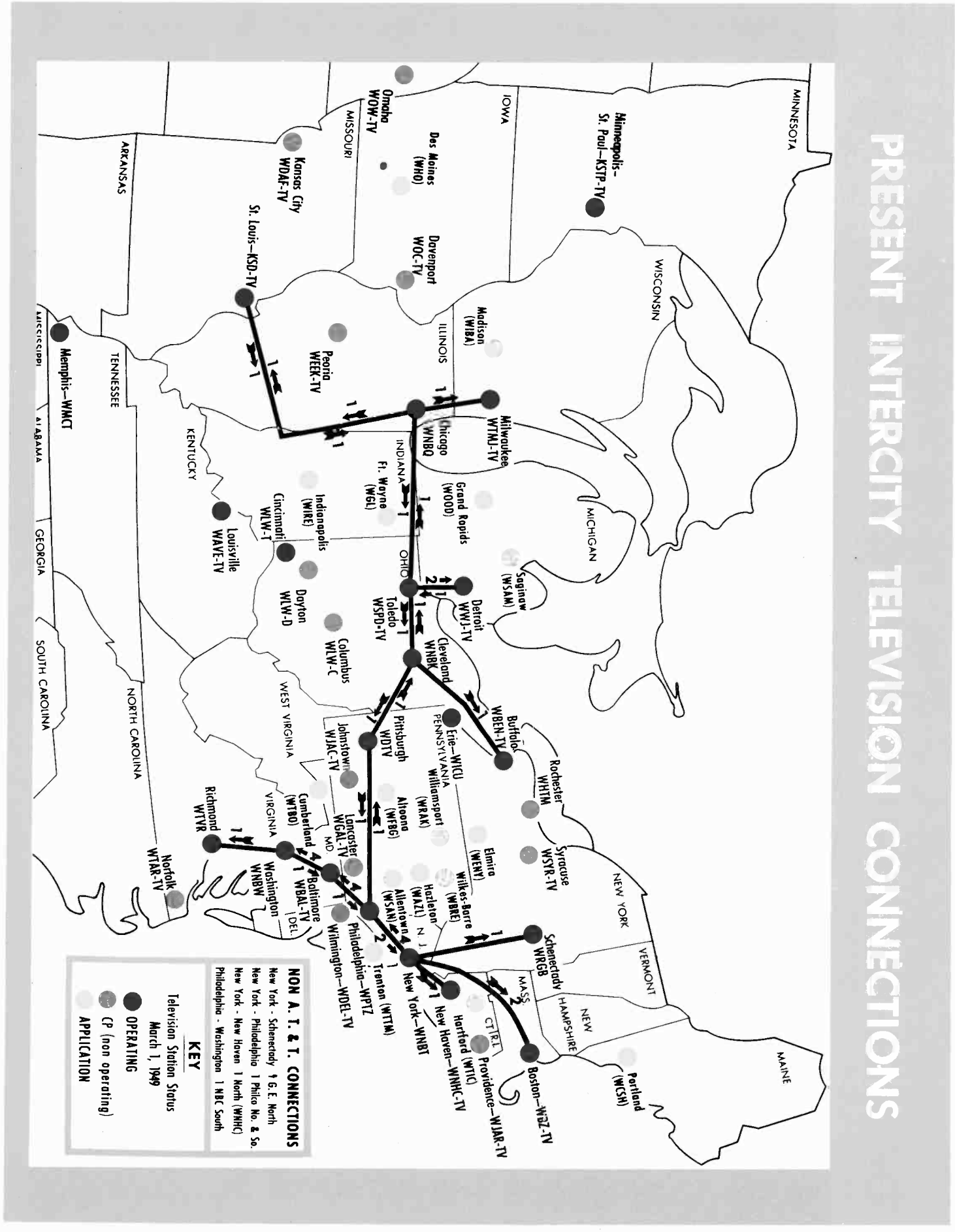

PRESENT INTERCITY TELEVISION CONNECTIONS
MINNESOTA
Minneapolis–St. Paul–KSTP-TV
IOWA
WISCONSIN
MICHIGAN
Omaha WOW-TV
Des Moines (WHO)
Davenport WOC-TV
Madison (WIBA)
Milwaukee WTMJ-TV
Chicago WNBQ
Grand Rapids (WOOD)
Saginaw (WSAM)
Detroit WWJ-TV
Cleveland WNBK
Toledo WSPD-TV
Ft. Wayne (WGL)
Indianapolis (WIRE)
Cincinnati WLW-T
Dayton WLW-D
Columbus WLW-C
Louisville WAVE-TV
Kansas City WDAF-TV
St. Louis–KSD-TV
Peoria WEEK-TV
Memphis–WMCT
ARKANSAS
MISSOURI
ILLINOIS
INDIANA
OHIO
KENTUCKY
TENNESSEE
MISSISSIPPI
ALABAMA
GEORGIA
SOUTH CAROLINA
NORTH CAROLINA
WEST VIRGINIA
VIRGINIA
PENNSYLVANIA
MD.
DEL.
N. J.
NEW YORK
MASS.
CT.
R.I.
VERMONT
NEW HAMPSHIRE
MAINE
Buffalo WBEN-TV
Erie–WICU
Williamsport (WRAK)
Johnstown WJAC-TV
Pittsburgh WDTV
Altoona (WFBG)
Lancaster WGAL-TV
Cumberland (WTBO)
Baltimore WBAL-TV
Washington WNBW
Richmond WTVR
Norfolk WTAR-TV
Philadelphia–WPTZ
Wilmington–WDEL-TV
Allentown (WSAN)
Hazleton (WAZL)
Wilkes-Barre (WBRE)
Elmira (WENY)
Rochester WHTM
Syracuse WSYR-TV
Schenectady WRGB
New York–WNBT
New Haven–WNHC-TV
Hartford (WTIC)
Providence–WJAR-TV
Trenton (WTTM)
Boston–WBZ-TV
Portland (WCSH)
NON A. T. & T. CONNECTIONS
New York - Schenectady 1 G. E. North
New York - Philadelphia 1 Philco No. & So.
New York - New Haven 1 North (WNHC)
Philadelphia - Washington 1 NBC South
KEY
Television Station Status
March 1, 1949
OPERATING
CP (non operating)
APPLICATION

FIG. 6

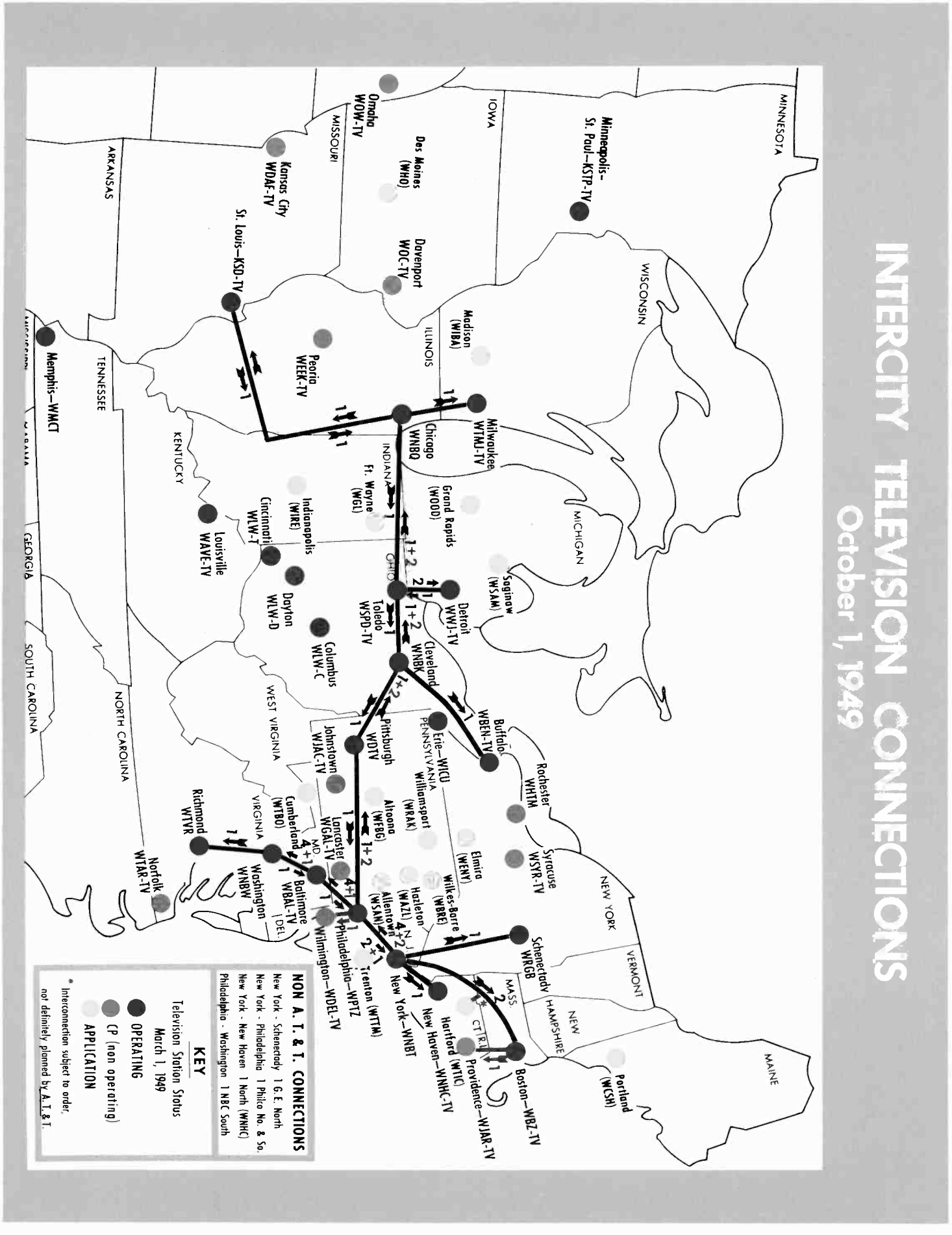

INTERCITY TELEVISION CONNECTIONS
October 1, 1949
MINNESOTA
IOWA
WISCONSIN
MICHIGAN
ILLINOIS
INDIANA
OHIO
MISSOURI
KENTUCKY
TENNESSEE
ARKANSAS
GEORGIA
SOUTH CAROLINA
NORTH CAROLINA
WEST VIRGINIA
VIRGINIA
MD.
DEL.
N. J.
PENNSYLVANIA
NEW YORK
MASS.
CT.
R. I.
VERMONT
NEW HAMPSHIRE
MAINE
Minneapolis–St. Paul–KSTP-TV
Omaha WOW-TV
Des Moines (WHO)
Davenport WOC-TV
Kansas City WDAF-TV
St. Louis–KSD-TV
Memphis–WMCT
Madison (WIBA)
Milwaukee WTMJ-TV
Chicago WNBQ
Peoria WEEK-TV
Ft. Wayne (WGL)
Grand Rapids (WOOD)
Saginaw (WSAM)
Detroit WWJ-TV
Toledo WSPD-TV
Cleveland WNBK
Indianapolis (WIRE)
Cincinnati WLW-T
Louisville WAVE-TV
Dayton WLW-D
Columbus WLW-C
Johnstown WJAC-TV
Pittsburgh WDTV
Erie–WICU
Williamsport (WRAK)
Buffalo WBEN-TV
Rochester WHTM
Syracuse WSYR-TV
Elmira (WENY)
Wilkes-Barre (WBRE)
Hazleton (WAZL)
Altoona (WFBG)
Allentown (WSAN)
Lancaster WGAL-TV
Cumberland (WTBO)
Baltimore WBAL-TV
Washington WNBW
Richmond WTVR
Norfolk WTAR-TV
Philadelphia–WPTZ
Wilmington–WDEL-TV
Trenton (WTTM)
New York–WNBT
Schenectady WRGB
Hartford (WTIC)
New Haven–WNHC-TV
Providence–WJAR-TV
Boston–WBZ-TV
Portland (WCSH)
NON A. T. & T. CONNECTIONS
New York - Schenectady 1 G. E. North
New York - Philadelphia 1 Philco No. & So.
New York - New Haven 1 North (WNHC)
Philadelphia - Washington 1 NBC South
KEY
Television Station Status
March 1, 1949
OPERATING
CP (non operating)
APPLICATION
* Interconnection subject to order, not definitely planned by A. T. & T.

FIG. 7

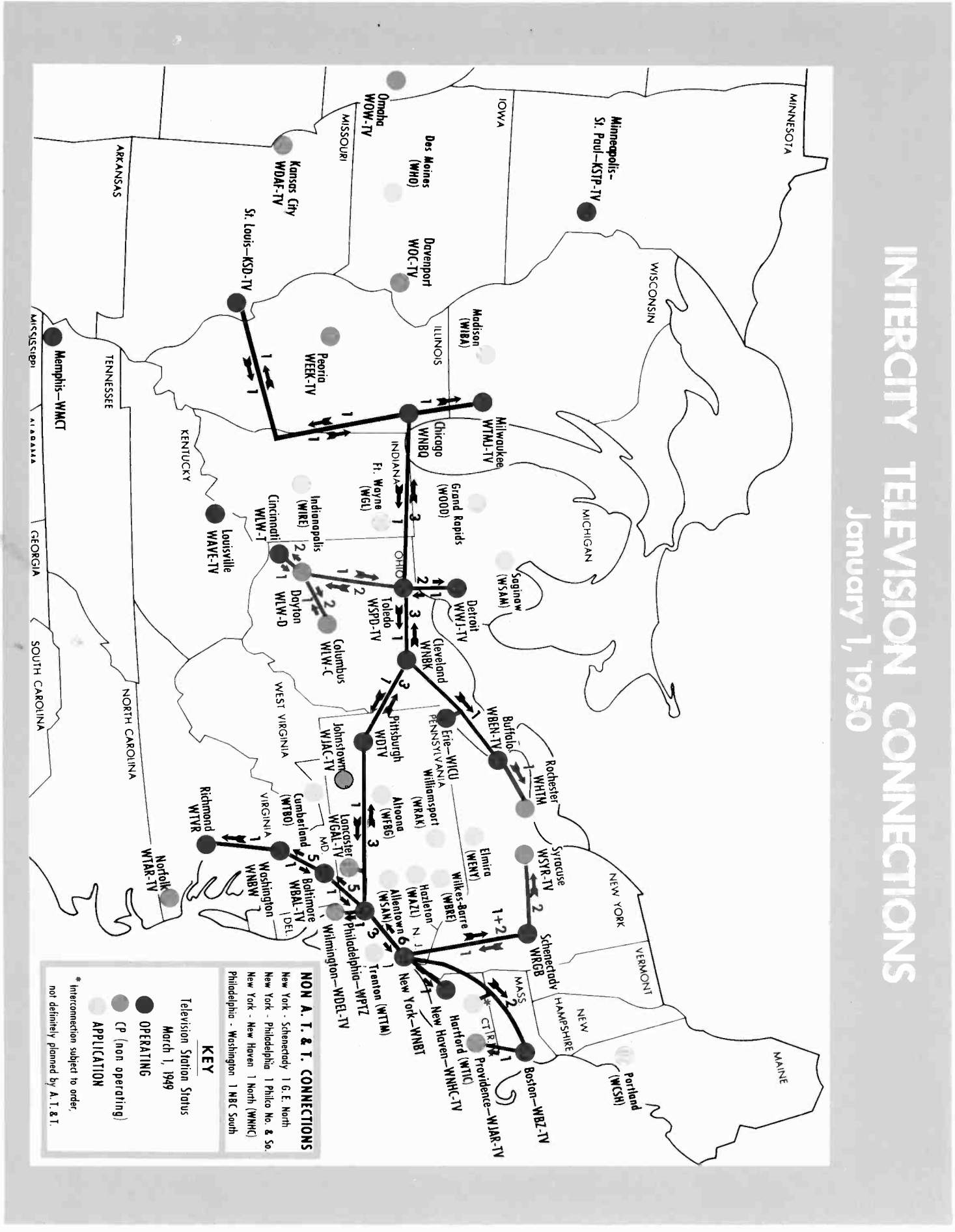

INTERCITY TELEVISION CONNECTIONS
January 1, 1950
MINNESOTA
Minneapolis–St. Paul–KSTP-TV
IOWA
WISCONSIN
Omaha WOW-TV
Des Moines (WHO)
Davenport WOC-TV
Kansas City WDAF-TV
St. Louis–KSD-TV
MISSOURI
ARKANSAS
Madison (WIBA)
ILLINOIS
Peoria WEEK-TV
Memphis–WMCT
TENNESSEE
MISSISSIPPI
ALABAMA
GEORGIA
Milwaukee WTMJ-TV
Chicago WNBQ
INDIANA
Ft. Wayne (WGL)
Grand Rapids (WOOD)
MICHIGAN
Saginaw (WSAM)
KENTUCKY
Louisville WAVE-TV
Indianapolis (WIRE)
Cincinnati WLW-T
Dayton WLW-D
OHIO
Toledo WSPD-TV
Detroit WWJ-TV
Cleveland WNBK
Columbus WLW-C
WEST VIRGINIA
Johnstown WJAC-TV
Pittsburgh WDTV
Erie–WICU
PENNSYLVANIA
Williamsport (WRAK)
Buffalo WBEN-TV
Rochester WHTM
Elmira (WENY)
Wilkes-Barre (WBRE)
Hazleton (WAZL)
Allentown (WSAN)
Altoona (WFBG)
Lancaster WGAL-TV
Cumberland (WTBO)
MD.
VIRGINIA
Richmond WTVR
Baltimore WBAL-TV
Washington WNBW
DEL.
Wilmington–WDEL-TV
Philadelphia–WPTZ
Trenton (WTTM)
NORTH CAROLINA
SOUTH CAROLINA
Norfolk WTAR-TV
Syracuse WSYR-TV
Schenectady WRGB
NEW YORK
New York–WNBT
VERMONT
NEW HAMPSHIRE
MASS.
CT.
R.I.
Hartford (WTIC)
New Haven–WNHC-TV
Providence–WJAR-TV
Boston–WBZ-TV
MAINE
Portland (WCSH)
NON A. T. & T. CONNECTIONS
New York - Schenectady 1 G. E. North
New York - Philadelphia 1 Philco No. & So.
New York - New Haven 1 North (WNHC)
Philadelphia - Washington 1 NBC South
KEY
Television Station Status
March 1, 1949
OPERATING
CP (non operating)
APPLICATION
* Interconnection subject to order, not definitely planned by A. T. & T.

FIG. 8

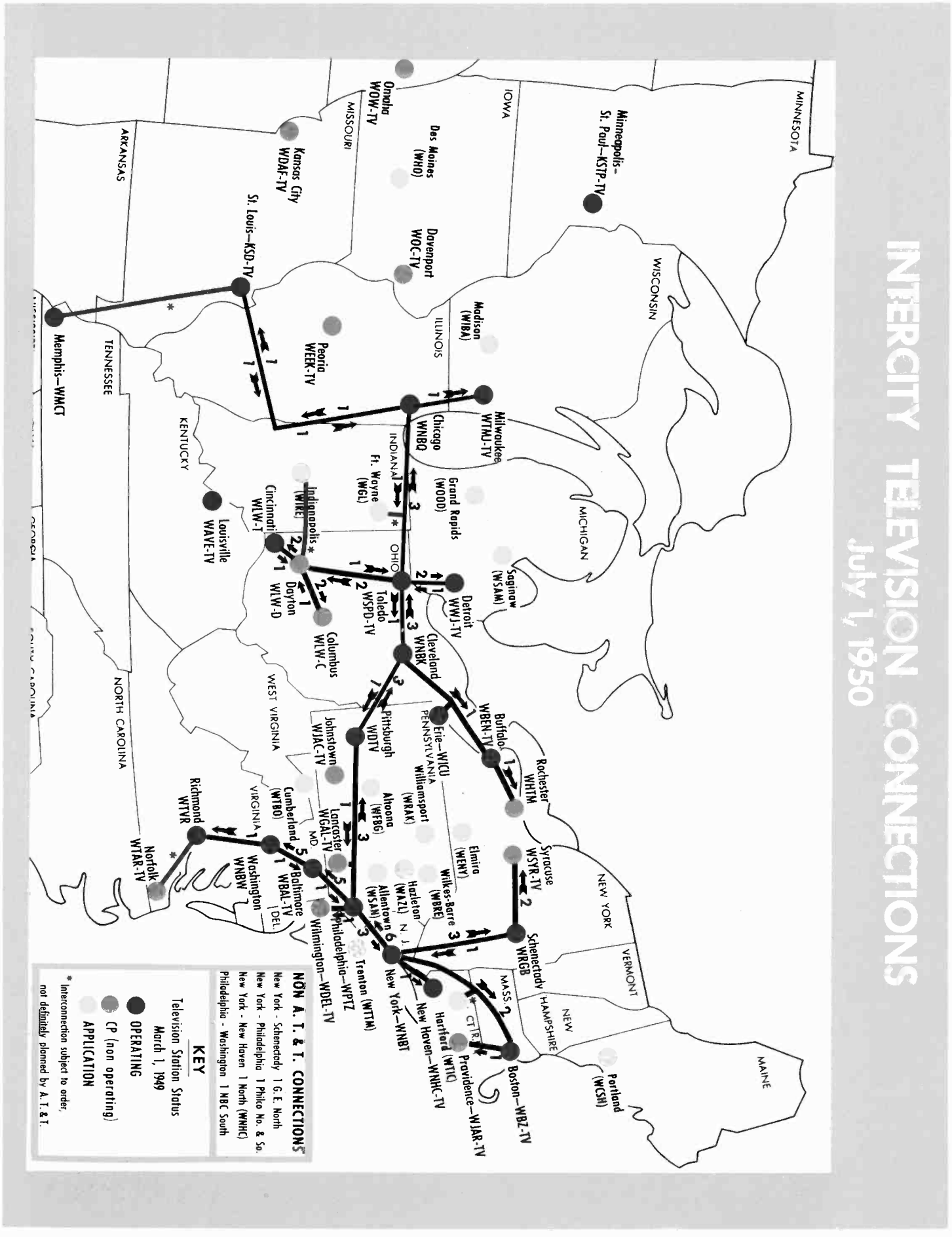

INTERCITY TELEVISION CONNECTIONS
July 1, 1950
MINNESOTA
IOWA
WISCONSIN
MICHIGAN
ILLINOIS
INDIANA
OHIO
KENTUCKY
WEST VIRGINIA
VIRGINIA
TENNESSEE
NORTH CAROLINA
ARKANSAS
MISSOURI
NEW YORK
VERMONT
NEW HAMPSHIRE
MASS.
CT'TR.
MAINE
N. J.
MD.
DEL.
Minneapolis–St. Paul–KSTP-TV
Omaha WOW-TV
Des Moines (WHO)
Davenport WOC-TV
Kansas City WDAF-TV
St. Louis–KSD-TV
Memphis–WMCT
Peoria WEEK-TV
Madison (WIBA)
Chicago WNBQ
Milwaukee WTMJ-TV
Ft. Wayne (WGL)
Indianapolis (WIRE)
Cincinnati WLW-T
Louisville WAVE-TV
Grand Rapids (WOOD)
Saginaw (WSAM)
Detroit WWJ-TV
Toledo WSPD-TV
Dayton WLW-D
Columbus WLW-C
Cleveland WNBK
Pittsburgh WDTV
Johnstown WJAC-TV
Cumberland (WTBO)
Richmond WTVR
Norfolk WTAR-TV
Lancaster WGAL-TV
Baltimore WBAL-TV
Washington WNBW
Philadelphia–WPTZ
Wilmington–WDEL-TV
Erie–WICU
Williamsport (WRAK)
Altoona (WFBG)
Hazleton (WAZL)
Allentown (WSAN)
Buffalo WBEN-TV
Rochester WHTM
Elmira (WENY)
Wilkes-Barre (WBRE)
Syracuse WSYR-TV
Schenectady WRGB
New York–WNBT
Trenton (WTTM)
New Haven–WNHC-TV
Hartford (WTIC)
Providence–WJAR-TV
Boston–WBZ-TV
Portland (WCSH)
NON A. T. & T. CONNECTIONS
New York - Schenectady 1 G. E. North
New York - Philadelphia 1 Philco No. & So.
New York - New Haven 1 North (WNHC)
Philadelphia - Washington 1 NBC South
KEY
Television Station Status
March 1, 1949
OPERATING
CP (non operating)
APPLICATION
* Interconnection subject to order, not definitely planned by A. T. & T.

FIG. 9

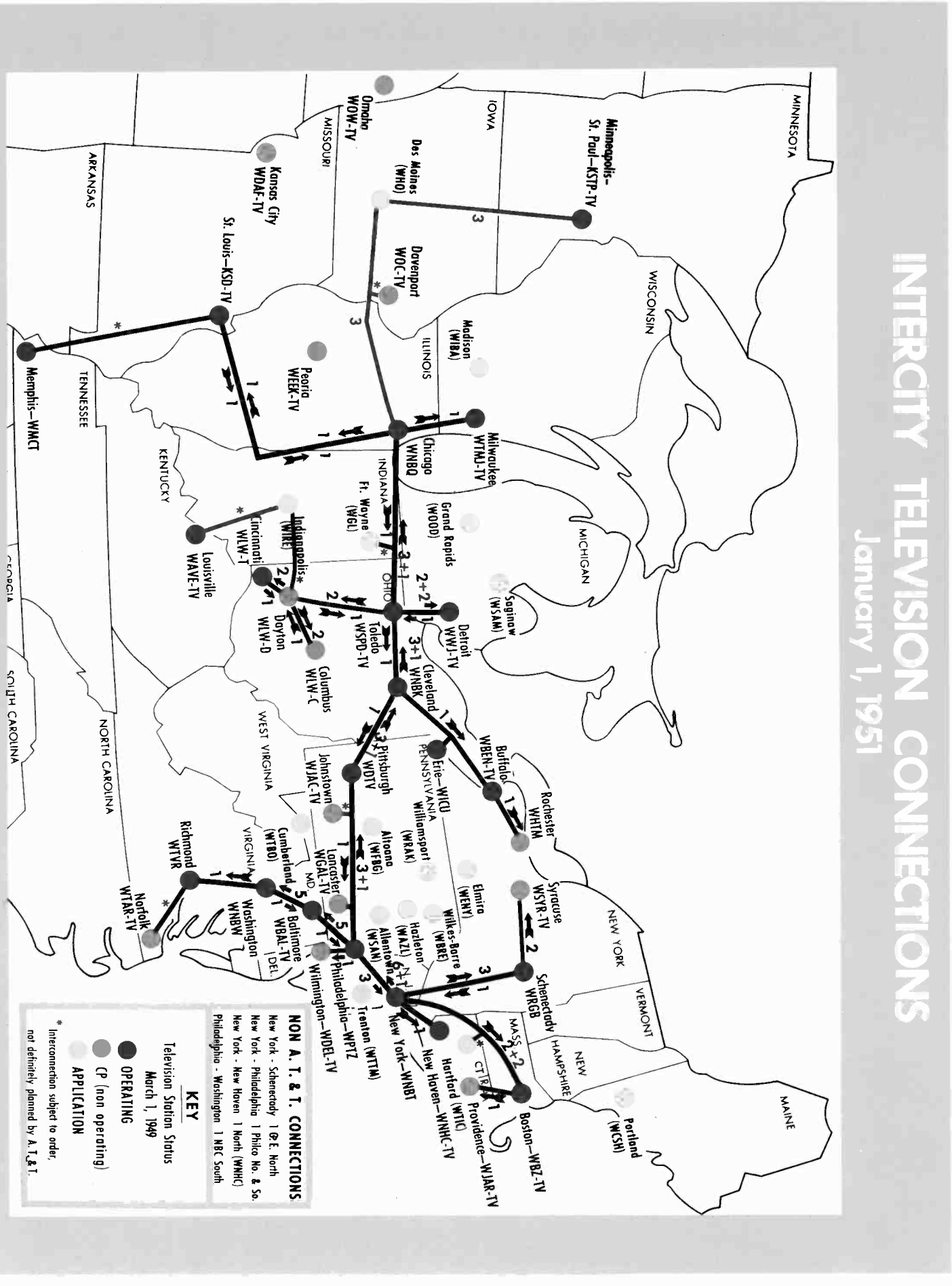

INTERCITY TELEVISION CONNECTIONS
January 1, 1951
MINNESOTA
WISCONSIN
MICHIGAN
IOWA
ILLINOIS
INDIANA
OHIO
MISSOURI
KENTUCKY
WEST VIRGINIA
VIRGINIA
TENNESSEE
ARKANSAS
NORTH CAROLINA
SOUTH CAROLINA
GEORGIA
PENNSYLVANIA
NEW YORK
VERMONT
NEW HAMPSHIRE
MAINE
MASS.
CT
R.I.
MD.
DEL.
Minneapolis–St. Paul–KSTP-TV
Des Moines (WHO)
Omaha WOW-TV
Davenport WOC-TV
Kansas City WDAF-TV
St. Louis–KSD-TV
Memphis–WMCT
Madison (WIBA)
Milwaukee WTMJ-TV
Chicago WNBQ
Peoria WEEK-TV
Grand Rapids (WOOD)
Ft. Wayne (WGL)
Indianapolis* (WIRE)
Cincinnati WLW-T
Louisville WAVE-TV
Saginaw (WSAM)
Detroit WWJ-TV
Toledo WSPD-TV
Dayton WLW-D
Columbus WLW-C
Cleveland WNBK
Pittsburgh WDTV
Johnstown WJAC-TV
Cumberland (WTBO)
Richmond WTVR
Norfolk WTAR-TV
Washington WNBW
Baltimore WBAL-TV
Lancaster WGAL-TV
Erie–WICU
Williamsport (WRAK)
Altoona (WFBG)
Hazleton (WAZL)
Allentown (WSAN)
Philadelphia–WPTZ
Wilmington–WDEL-TV
Trenton (WTTM)
New York–WNBT
Buffalo WBEN-TV
Rochester WHTM
Elmira (WENY)
Wilkes-Barre (WBRE)
Syracuse WSYR-TV
Schenectady WRGB
Hartford (WTIC)
New Haven–WNHC-TV
Providence–WJAR-TV
Boston–WBZ-TV
Portland (WCSH)
NON A. T. & T. CONNECTIONS
New York - Schenectady 1 G.E. North
New York - Philadelphia 1 Philco No. & So.
New York - New Haven 1 North (WNHC)
Philadelphia - Washington 1 NBC South
KEY
Television Station Status
March 1, 1949
OPERATING
CP (non operating)
APPLICATION
* Interconnection subject to order, not definitely planned by A. T. & T.

FIG. 10

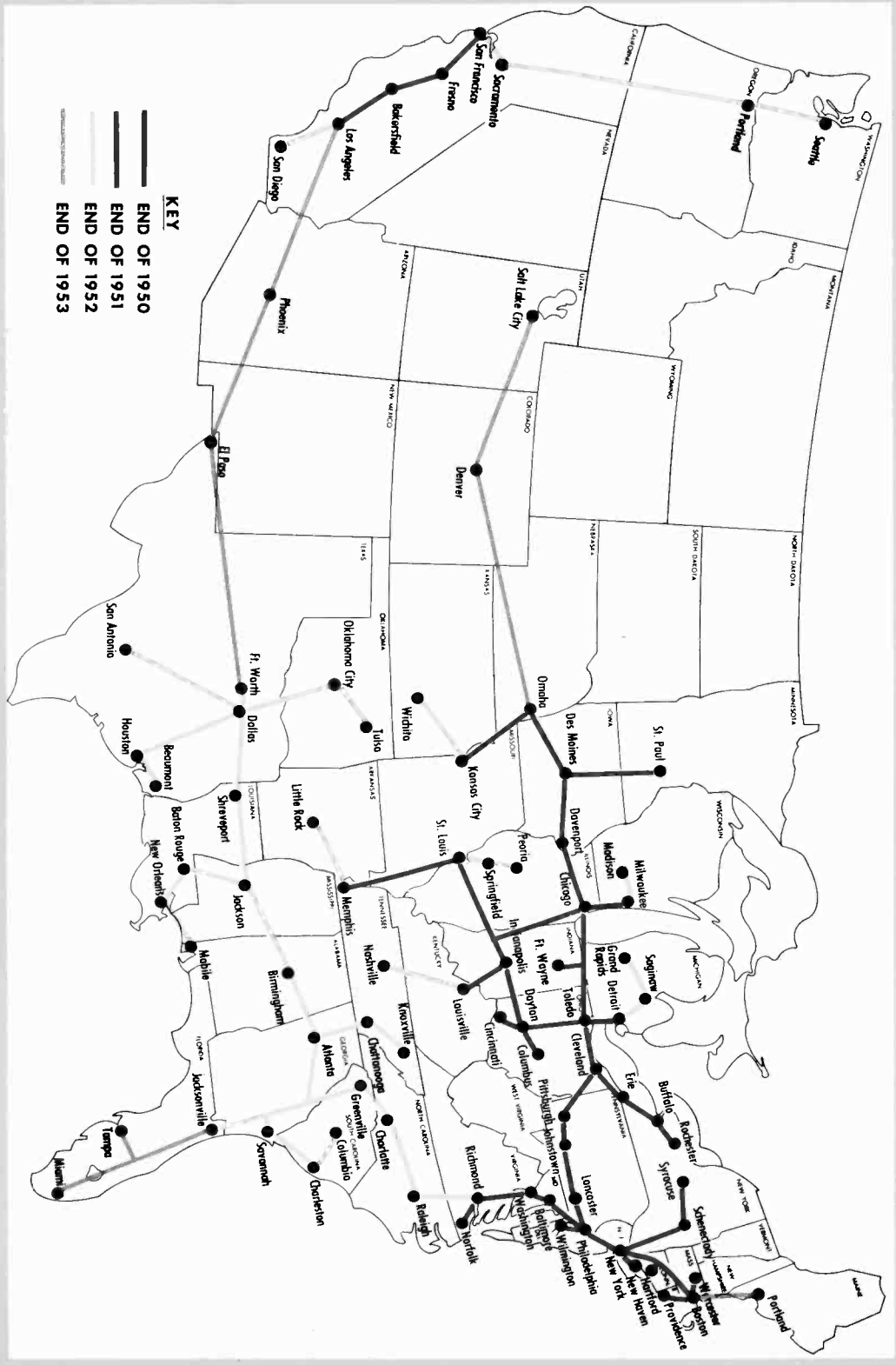

Probable Future Plans for Television
Intercity Connections
KEY
END OF 1950
END OF 1951
END OF 1952
END OF 1953
Seattle
Portland
San Francisco
Sacramento
Fresno
Bakersfield
Los Angeles
San Diego
Phoenix
Salt Lake City
Denver
El Paso
San Antonio
Houston
Beaumont
Baton Rouge
New Orleans
Mobile
Jackson
Shreveport
Ft. Worth
Dallas
Oklahoma City
Tulsa
Wichita
Omaha
Kansas City
St. Louis
Springfield
Peoria
Davenport
Des Moines
St. Paul
Madison
Milwaukee
Chicago
Indianapolis
Ft. Wayne
Grand Rapids
Saginaw
Detroit
Toledo
Dayton
Cincinnati
Louisville
Cleveland
Columbus
Pittsburgh
Johnstown
Erie
Buffalo
Rochester
Syracuse
Schenectady
Albany
Boston
Worcester
Providence
New Haven
New York
Philadelphia
Wilmington
Baltimore
Washington
Lancaster
Richmond
Norfolk
Raleigh
Charlotte
Greenville
Columbia
Charleston
Savannah
Jacksonville
Tampa
Miami
Atlanta
Birmingham
Chattanooga
Knoxville
Nashville
Memphis
Little Rock

FIG. 11

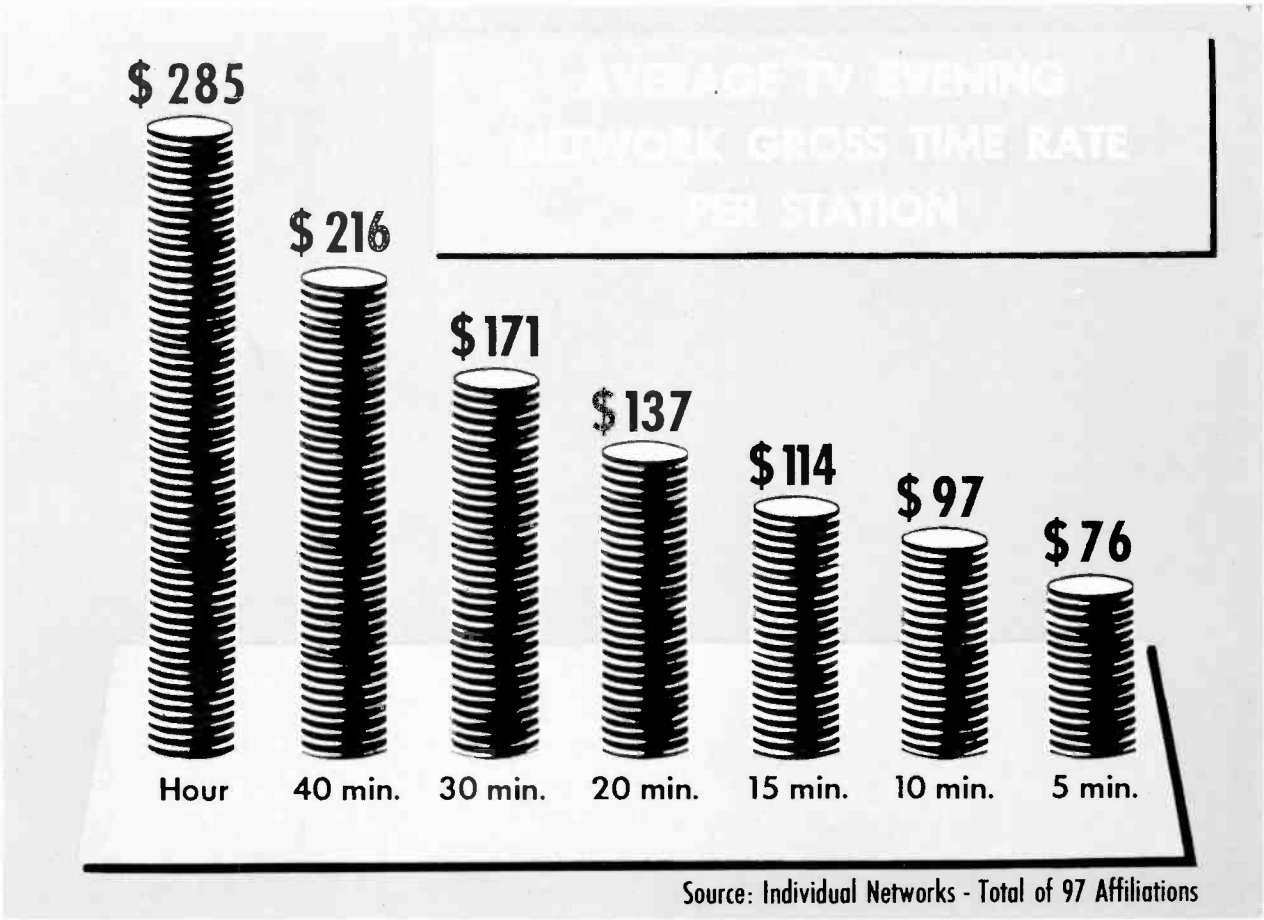

$ 285
$ 216
$ 171
$ 137
$ 114
$ 97
$ 76
Hour
40 min.
30 min.
20 min.
15 min.
10 min.
5 min.
Source: Individual Networks - Total of 97 Affiliations

FIG. 12

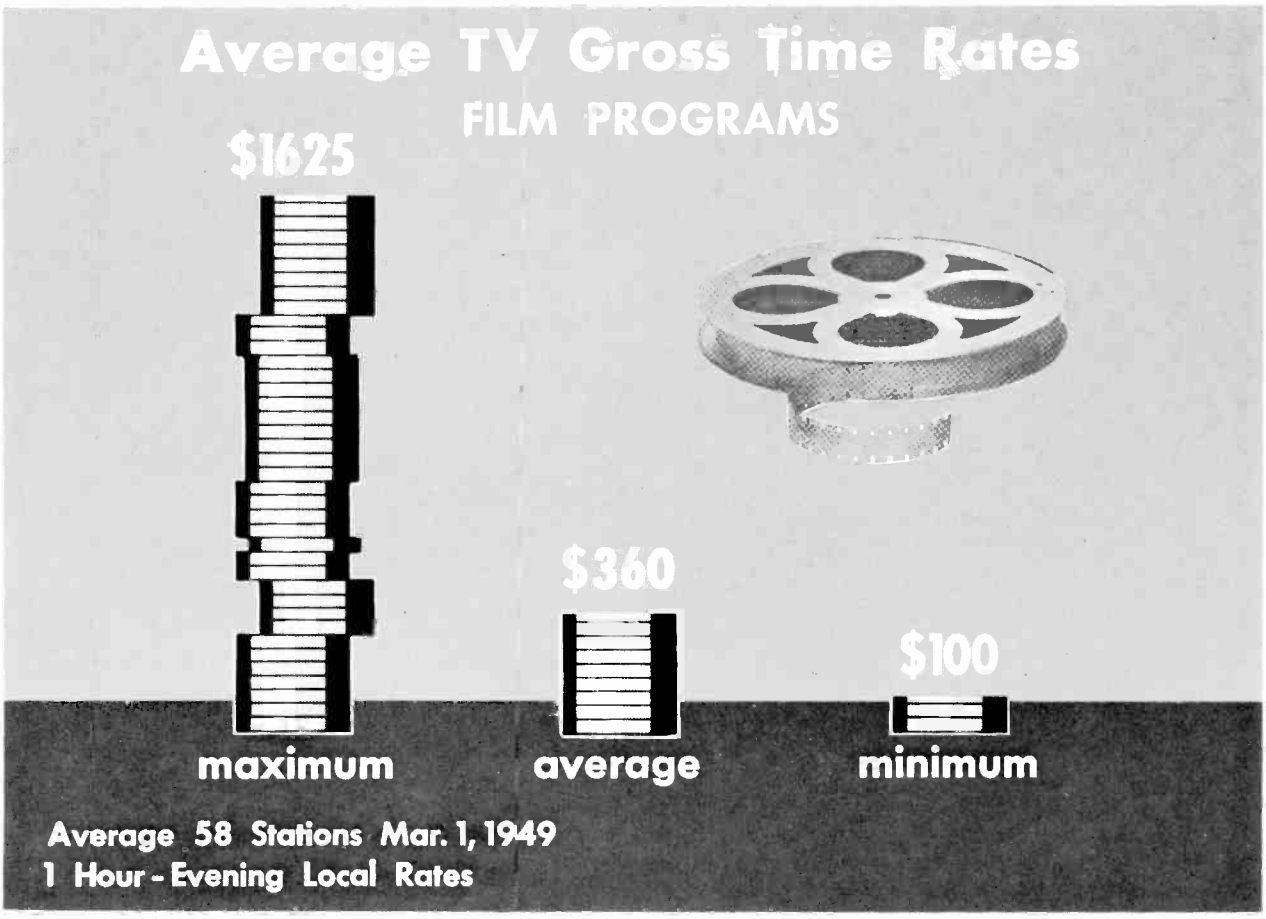

Average TV Gross Time Rates
FILM PROGRAMS
$1625
$360
$100
maximum
average
minimum
Average 58 Stations Mar. 1, 1949
1 Hour - Evening Local Rates

FIG. 13


AVERAGE
TV GROSS TIME RATES
STUDIO PROGRAMS
$100
maximum
average
minimum

FIG. 14

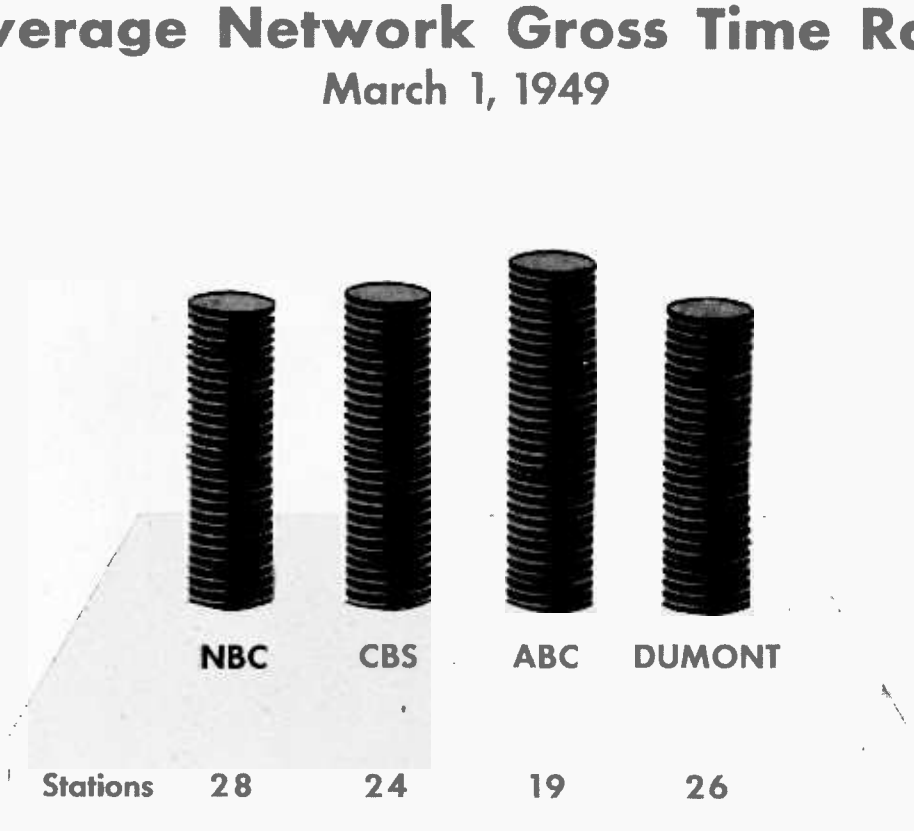

Average Network Gross Time Rate
March 1, 1949
NBC
CBS
ABC
DUMONT
Stations
28
24
19
26

FIG. 15

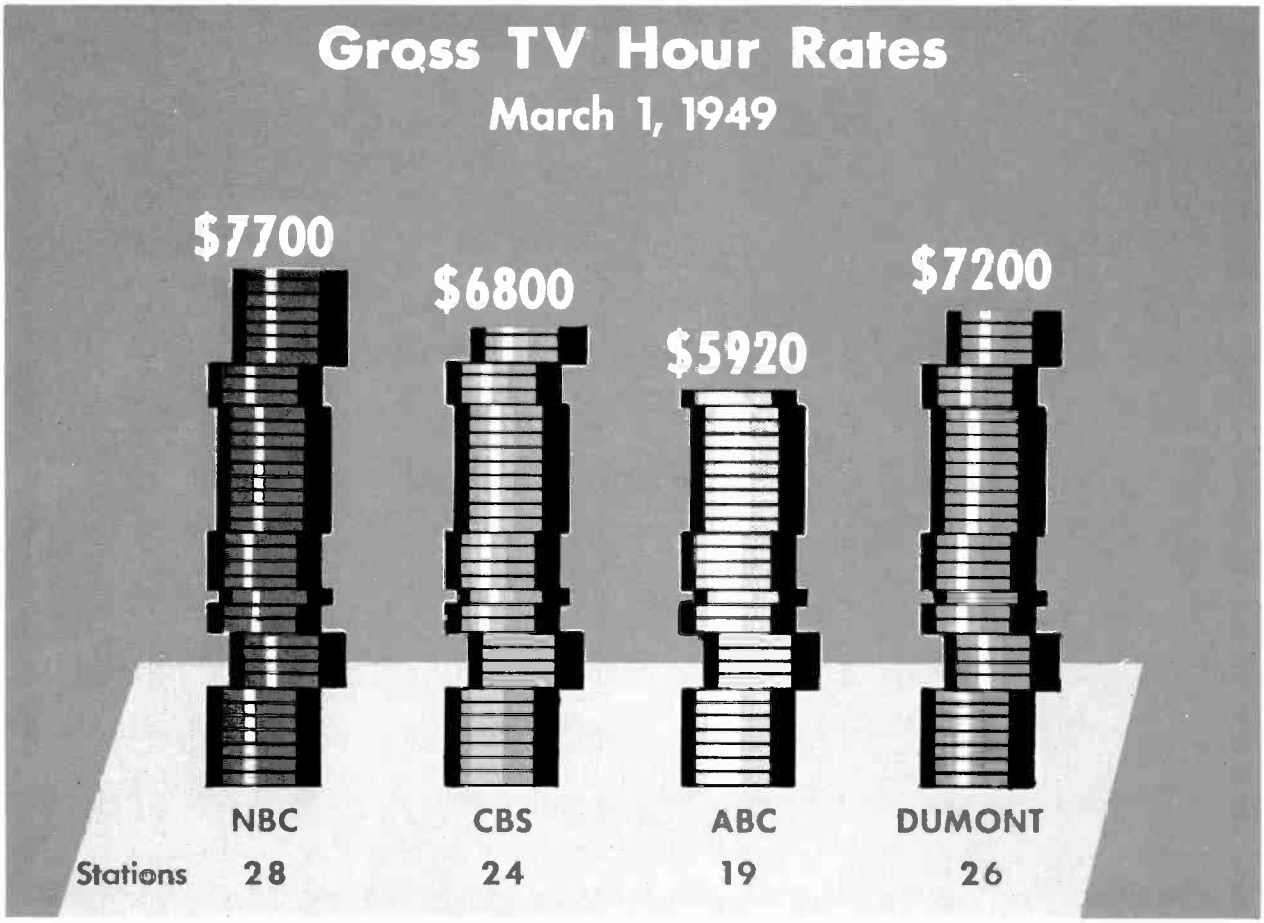
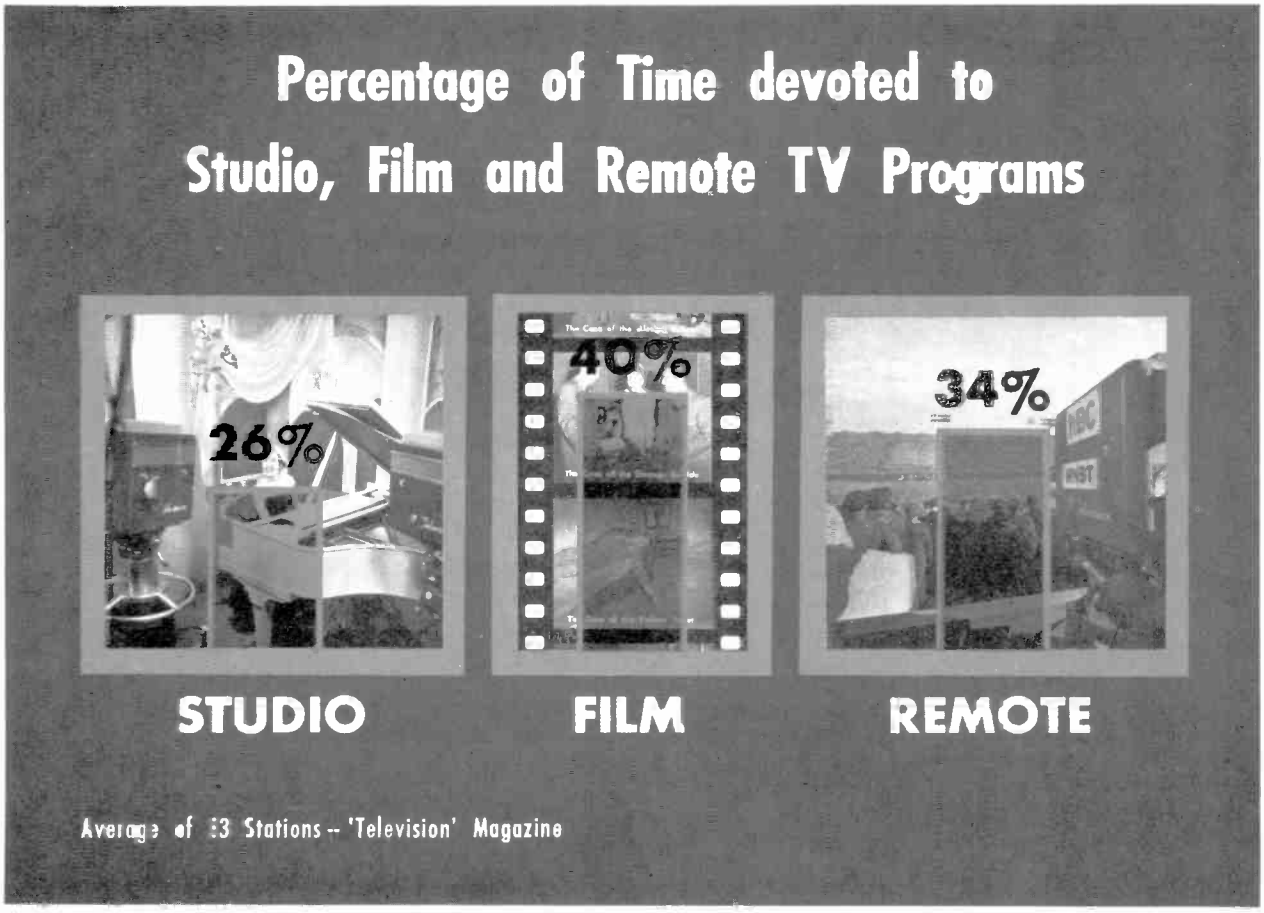

Gross TV Hour Rates
March 1, 1949
$7700
$6800
$5920
$7200
NBC
CBS
ABC
DUMONT
Stations
28
24
19
26

FIG. 16


Percentage of Time devoted to
Studio, Film and Remote TV Programs
26%
40%
34%
STUDIO
FILM
REMOTE
Average of 13 Stations -- 'Television' Magazine

TV SET INSTALLATIONS - TOP TEN CITIES
March 1, 1949

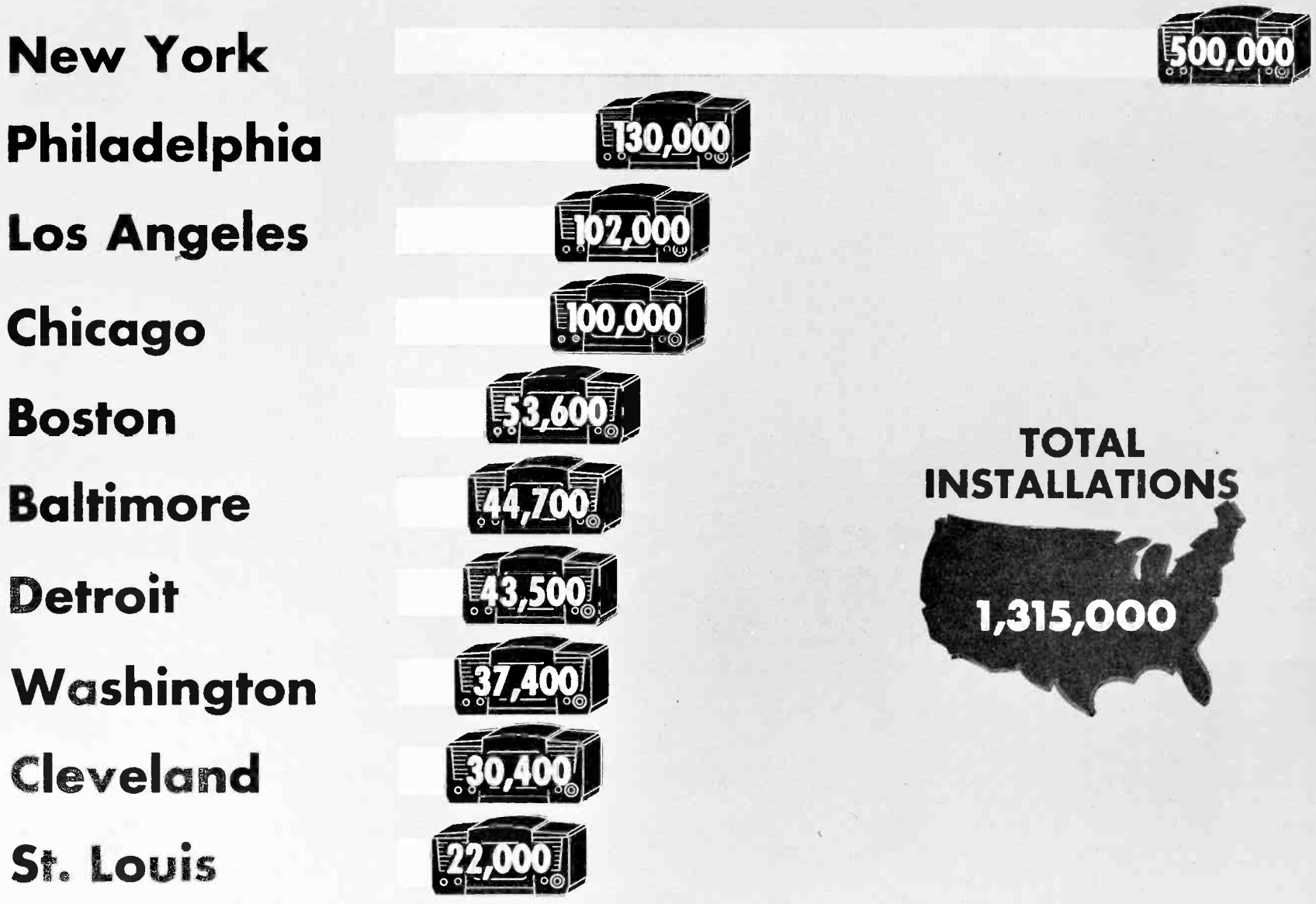


FIG. 17

FIG. 18

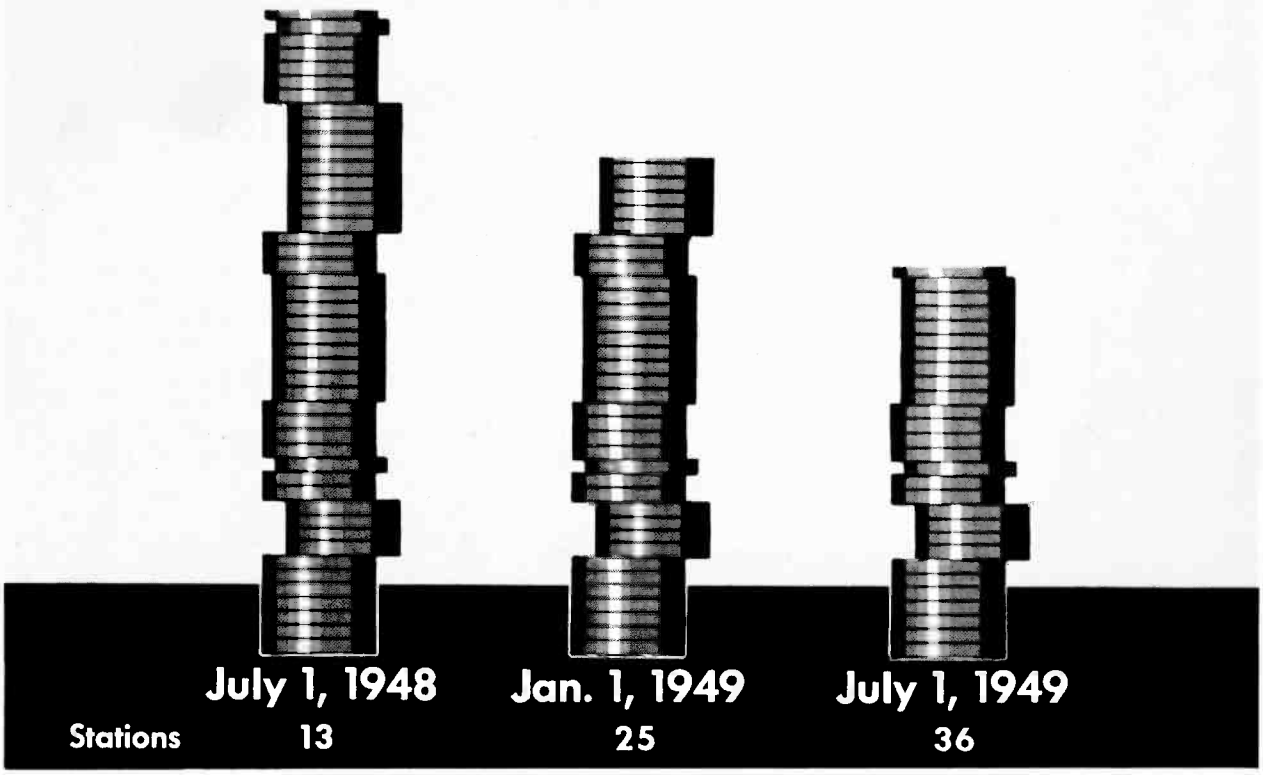

July 1, 1948
Jan. 1, 1949
July 1, 1949
Stations
13
25
36

FIG. 19

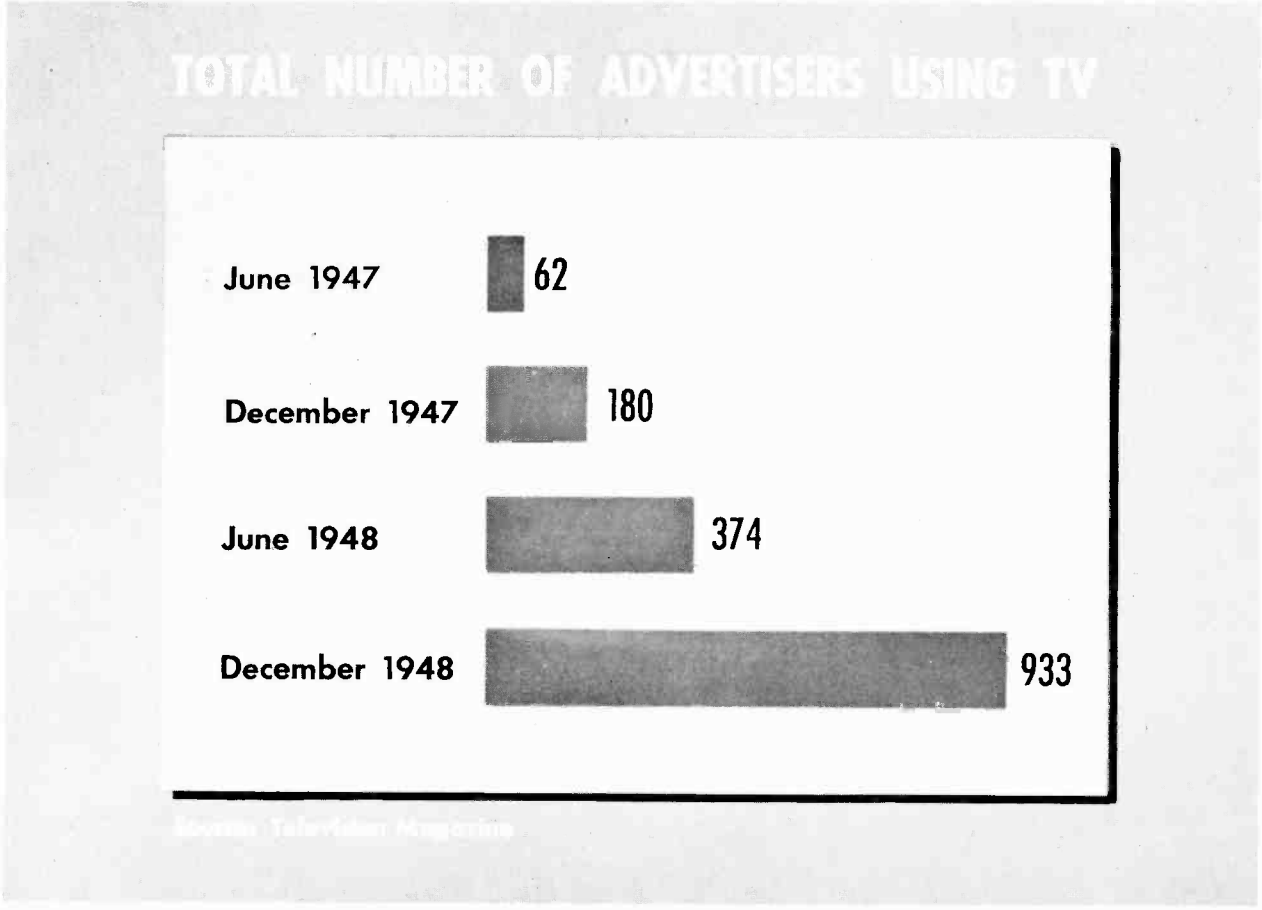

TOTAL NUMBER OF ADVERTISERS USING TV
June 1947
62
December 1947
180
June 1948
374
December 1948
933

FIG. 20

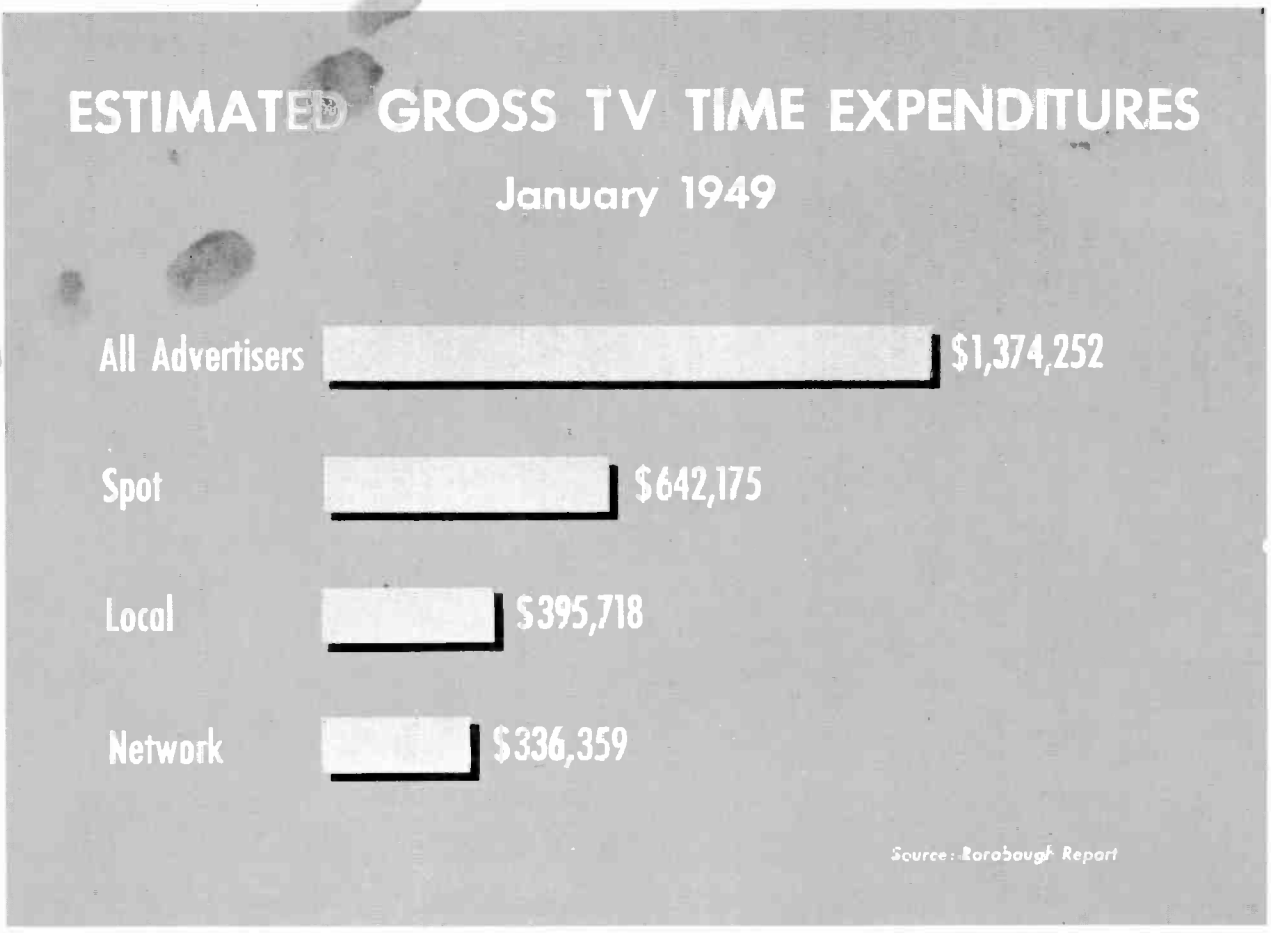
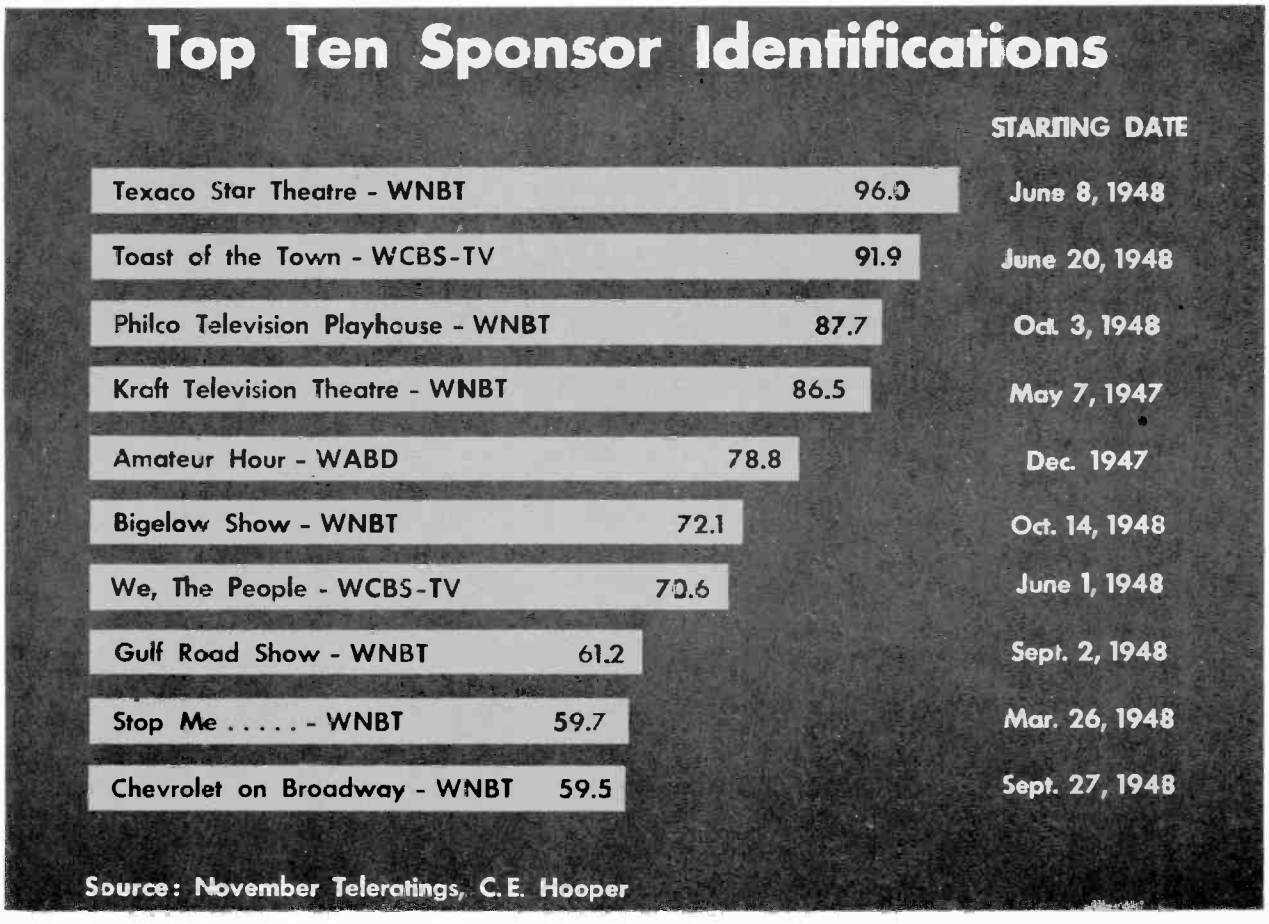

ESTIMATED GROSS TV TIME EXPENDITURES
January 1949
All Advertisers
$1,374,252
Spot
$642,175
Local
$395,718
Network
$336,359
Source: Barabough Report

FIG. 21


Top Ten Sponsor Identifications
STARTING DATE
Texaco Star Theatre - WNBT 96.0 June 8, 1948
Toast of the Town - WCBS-TV 91.9 June 20, 1948
Philco Television Playhouse - WNBT 87.7 Oct. 3, 1948
Kraft Television Theatre - WNBT 86.5 May 7, 1947
Amateur Hour - WABD 78.8 Dec. 1947
Bigelow Show - WNBT 72.1 Oct. 14, 1948
We, The People - WCBS-TV 70.6 June 1, 1948
Gulf Road Show - WNBT 61.2 Sept. 2, 1948
Stop Me . . . . . - WNBT 59.7 Mar. 26, 1948
Chevrolet on Broadway - WNBT 59.5 Sept. 27, 1948
Source: November Teleratings, C.E. Hooper

JOHN J. MULLANEY
JOHN H. MULLANEY, P.E.

MULLANEY ENGINEERING, INC.
9049 SHADY GROVE COURT
GAITHERSBURG, MD 20877

301 921-0115

ENGINEERING EXHIBIT EE-2:

RADIO STATION KINT(AM)
PASO DEL NORTE BROADCASTING CORPORATION
EL PASO, TEXAS
1150 kHz 0.38/5.0 kW U

AUGUST 17, 1992

ENGINEERING STATEMENT IN SUPPORT OF
AN APPLICATION TO
INCREASE DAYTIME POWER

ENGINEERING EXHIBIT EE-2:

RADIO STATION KINT(AM)
PASO DEL NORTE BROADCASTING CORPORATION
EL PASO, TEXAS
1150 kHz 0.38/5.0 kW U

TABLE OF CONTENTS:

Table of Contents (Continued)

Section V-A - AM BROADCAST ENGINEERING DATA	FOR COMMISSION USE ONLY File No. _____ ASB Referral Date _____ Referred by _____

Name of Applicant: Paso Del Norte Broadcasting Corporation

1. Purpose of Application: *(check all appropriate boxes)*

- ☐ Construct new station
- ■ Make changes in authorized/existing station — Call Sign KINT (Formerly KEZB)
  - ☐ Principal authorized/licensed community
  - ☐ Hours of operation
  - ☐ Frequency
  - ☐ Transmitter location
  - ■ Power
  - ☐ Filed in compliance with an Allotment Plan to migrate to the expanded band
  - ☐ Main studio location — Allotment Number _____
  - ☐ Antenna system *(including increase in height by addition of FM or TV antenna)*
    - ☐ New antenna construction
    - ☐ Alteration of existing structure
      - ☐ Increase height
      - ☐ Decrease height
      - ☐ Non-DA to DA
      - ☐ DA to Non-DA
- ☐ Other *(Summarize briefly the nature of the changes proposed)*

2. Principal community to be served:

State	County	City or Town
TX	El Paso	El Paso

3. Facilities requested:

Frequency: 1380 kHz — Hours of Operations:

Power: Night: 0.38 kW — Day: 5.0 kW — Critical hours: N/A kW

Class of Station (A,B,C or D): B — ■ Stereo — ☐ Monaural

4. Transmitter location:

State	County	City or Town
TX	El Paso	El Paso

Exact antenna location *(street address)*. If outside city limits, give name of nearest town and distance *(in kilometers)*, and direction of antenna from town. N.E. of intersection of Chamizal Border Highway and Fonsica Street

Geographical coordinates *(to nearest second)*. For directional antenna give coordinates of center of array. For single vertical radiator give tower location. Specify South Latitude or East Longitude where applicable; otherwise, North Latitude or West Longitude will be presumed.

Latitude	Longitude
31° 45' 13"	106° 24' 58"

SECTION V-A – AM BROADCAST ENGINEERING DATA (Page 2)

5. Is the proposed site the same transmitter-antenna site of other stations authorized by the Commission or specified in another application pending before the Commission? ☐ Yes ■ No

If Yes, indicate call sign or application file number: _____

6. Antenna system *(including ground or counterpoise system)*

Non-Directional ■ Day ■ Night ☐ Critical Hours

Estimated efficiency 297.72 mV/m per kW at one kilometer

If antenna is either top loaded or sectionalized, describe fully in an Exhibit. *(Include apparent electrical height.)* Exhibit No.

Directional ☐ Day only (DA-D) ☐ Night only (DA-N)

☐ Same constants and power day and night (DA-1)

☐ Different constants and/or power day and night (DA-2)

☐ Different constants and/or power day, critical hours and night (DA-3)

Submit complete engineering data in accordance with 47 C.F.R. Section 73.150 for each Directional antenna pattern proposed.

Non-directional/Directional

If antenna(s) is/are either top loaded or sectionalized, describe fully in an Exhibit. *(Include apparent electrical height.* Exhibit No.

Type of feed circuits (excitation) ☐ Series Feed ☐ Shunt Feed

■ Folded Unipole ☐ Other (explain)

TOWERS *(In meters, rounded to nearest meter)*	1	2	3	4	5	6
Overall height of radiator above base insulator, or above base, if grounded	67.7 m					
Overall height above ground *(without obstruction lighting)*	70.4 m					
Overall height above ground *(include obstruction lighting)*	71.3 m					
Overall height above mean sea level *(include obstruction lighting)*	1124.7 m					

If additional towers, attach information exactly as it appears above.

7. Has the FAA been notified of the proposed construction? ☐ Yes ■ No

No change in overall height or configuration

If Yes, give date and office where notice was filed and attach as an Exhibit a copy of FAA determination, if available. On File Exhibit No. N/A

Date 1 SEP 1986 Office where filed Fort Worth, TX

(Study No. 86-ASW-2089-OE, approved by Stan L. Hale 10/21/86)

SECTION V-A – AM BROADCAST ENGINEERING DATA (Page 3)

8. List all landing areas within 8 kilometers of antenna site. Give distances and direction to the nearest boundary of each landing area from the antenna site.

	Landing Area	Distance (km)	Direction
(a)	El Paso International	5.23	18 deg. T
(b)			
(c)			

9. Attach as an Exhibit a description and vertical plan sketch *(including supporting buildings, if any)* of the proposed structure, giving heights above ground, in meters, for all significant features. Clearly indicate existing portions, noting lighting, and distinguishing between the skeletal or other main supporting structure and the antenna elements. If a directional antenna, give spacing and orientation of towers. Exhibit No. EE-2

If not fully described above, attach as an Exhibit further details and dimensions, including any other antennas mounted on tower and associated isolation circuits. Exhibit No. N/A

Attach as an Exhibit, a plat of the transmitter site clearly showing boundary lines, roads, railroads, other obstructions, and the ground system or counterpoise. Show number and dimensions of ground radials or, if a counterpoise is used, show heights and dimensions. Exhibit No. EE-2

This item is also on file, FCC File BL890712AA

10. Will the main studio be located within the station's principal community contour as defined by 47 C.F.R. Section 73.24(i)? ■ Yes ☐ No

If No, attach as an Exhibit a justification pursuant to 47 C.F.R. Section 73.1125. Exhibit No. N/A

11. Is there a remote control location or is one to be established in accordance with 47 C.F.R. Section 73.1400? ■ Yes ☐ No

If yes, submit the following:

State	County	City or Town
TX	El Paso	El Paso
Street address *(or other identification)*		
2501 North Mesa		

12. Attach as an Exhibit a sufficient number of aerial photographs taken in clear weather at appropriate altitudes and angles to permit identification of all structures in the vicinity. The photographs must be marked so as to show compass directions, exact boundary lines of the proposed site, and locations of the proposed 1000 mV/m contour for both day and night operation. Photographs taken in eight different directions from an elevated position on the ground will be acceptable in lieu of the serial photographs if the data referred to can be clearly shown. Exhibit No. N/A

13. Is the population within the 1 V/m (1000 mV/m) contour less than 300 persons or less than 1.0 percent of the population within the 25 mV/m contour? ■ Yes ☐ No

If No, attach as an Exhibit a justification pursuant to 47 C.F.R. Section 73.24(g). Exhibit No. N/A

14. Environmental Statement. *(See 47 C.F.R. Section 1.1301 et seq.)*

(a) Would a Commission grant of this application come within 47 C.F.R. Section 1.1307, such that it may have a significant environmental impact? ☐ Yes ■ No

If you answer Yes, submit as an Exhibit an Environmental Assessment required by 47 C.F.R. Section 1.1311. Exhibit No. N/A

If No, explain briefly why not. No change to existing fenced structure

(b) Distance from tower(s) to the nearest point of the fence enclosing the tower(s) in meters. >30 Meters

SECTION V-A – AM BROADCAST ENGINEERING DATA (Page 4)

15. Allocation Studies

A. Daytime *(For assistance, see 47 C.F.R. Section 73.37)*

(1) For daytime operation, attach as an exhibit map(s) having appropriate scales, showing the 1000, 5, 2 and 0.5 (0.1, if Class A station) daytime contours in mV/m for both existing and proposed operations. On the map(s) showing the 5 mV/m contours **CLEARLY INDICATE THE LEGAL BOUNDARIES OF THE PRINCIPAL COMMUNITY TO BE SERVED.**

Exhibit No. EE-2

(2) Does the daytime 5 mv/m contour encompass the legal boundaries of the principal community to be served?

■ Yes ☐ No

If No, attach as an Exhibit a justification for waiver of 47 C.F.R. Section 73.24(i).

Exhibit No. N/A

(3) For daytime operation, for stations on a frequency between 535 kHz and 1605 kHz, attach as an Exhibit an allocation study utilizing Figure M-3 *(Figure R-3 47 C.F.R. Section 73.190)* or an accurate full scale reproduction thereof and using pertinent field strength measurement data where available, a full scale exhibit of the entire pertinent area to show the following:

Exhibit No. EE-2

(a) Normally protected and the interfering contours for the proposed operation along all azimuths.

(b) Normally protected and interfering contours of existing stations and other proposed stations in pertinent areas with which prohibited overlap would result as well as those existing stations and other proposals which require study to clearly show absence of prohibited overlap. If prohibited overlap were to occur as a result of the proposal, appropriate justification for waiver of 47 C.F.R. Section 73.37 is to be included.

(c) Plot of the transmitter location of each station or proposal requiring investigation, with identifying call letters, file numbers, and operating or proposed facilities.

(d) Properly labeled longitude and latitude degree lines, shown across entire Exhibit.

(4) For daytime operation, attach as an Exhibit a tabulation of the following:

Exhibit No. EE-2

(a) Azimuths along which the groundwave contours were calculated for all stations or proposals shown on allocation study exhibits required by (3)(a).

(b) Inverse distance field strength used along each azimuth.

(c) Basis for ground conductivity utilized along each azimuth specified in (4)(a). If field strength measurements are used, submit copies of the analyzed measurements. If measurement data are taken from Commission records identify the source of the measurements in the Commission's files.

(d) Calculated distances.

B. Critical Hours *(If applicable, see 47 C.F.R. Section 73.187)*

(1) For critical hour operation, attach as an Exhibit map(s) having appropriate scales, showing the 1000, 5 and 0.5 critical hours contours in mV/m for both existing and proposed operations. On the map(s) showing the 5 mV/m contours **CLEARLY INDICATE THE LEGAL BOUNDARIES OF THE PRINCIPAL COMMUNITY TO BE SERVED.**

Exhibit No. N/A

(2) Does the critical hours 5 mV/m contour encompass the legal boundaries of the principal community be served?

☐ Yes ☐ No

If No, attach as an Exhibit justification for waiver of 47 C.F.R. Section 73.24(i).

Exhibit No. N/A

(3) For critical hours operation, attach as an Exhibit an allocation study utilizing Figure M-3 *(Figure R-3 47 C.F.R. Section 73.190)* or an accurate full scale reproduction thereof and using pertinent field strength measurement data where available, a full scale exhibit of the entire pertinent area to show the following: The 0.1 mV/m groundwave contour pertinent arcs of Class A stations and appropriate studies to establish compliance with 47 C.F.R. Section 73.187 when operation is proposed on a U.S. Class A channel.

Exhibit No. N/A

SECTION V-A – AM BROADCAST ENGINEERING DATA (Page 5)

C. Nighttime. *(For assistance, see 47 C.F.R. Section 73.182)*

(1) For nighttime operation, attach as an Exhibit map(s) having appropriate scales, showing the 1000 mV/m and coverage contours (appropriate minimum protected value for proposed class of station, or RSS nighttime interference-free contour; whichever is the greater value) for both existing and proposed operations. On the map(s) showing the interference-free contours. CLEARLY INDICATE THE LEGAL BOUNDARIES OF THE PRINCIPAL COMMUNITY TO BE SERVED. On file. No change to License

Exhibit No. N/A

(2) Does the nighttime 5 mV/m or nighttime interference free contour (which ever is higher) encompass 80% of the principal community to be served (50% for expanded band 1605-1705 kHz stations?

☐ Yes ☐ No

On file. No change (PSSA)

If No, attach as an Exhibit justification for waiver of, or exemption pursuant to 47 C.F.R. Section 73.24(i). On file

Exhibit No. N/A

(3) For nighttime operation, for stations on a frequency between 535 kHz and 1605 kHz, attach as an Exhibit allocation data including the following:

Exhibit No. N/A

On file; Power level assigned by the FCC (PSSA)

(a) Proposed nighttime limitation to other existing or proposed stations with which objectionable interference could result, as well as those other proposals and existing stations which require study to show clearly absence of objectionable interference.

(b) All existing or proposed nighttime limitations which enter into the nighttime RSS limitation of each of the existing or proposed facilities investigated under (3)(a) above.

(c) All existing and proposed limitations which contribute to the RSS nighttime limitation of the proposed operation, together with those limitations which must be studied before being excluded.

(d) A detailed interference study plotted upon an appropriate scale map if a question exists with respect to nighttime interference to other existing or proposed facilities along bearing other than on a direct line toward the facility considered. (Clipping study)

(e) The detailed basis for each nighttime limitation calculated under (3)(a), (b), (c) and (d) above.

16. Attach as an Exhibit a map *(7.5 minute U.S. Geological Survey topographic quadrangles, if available)* of the proposed antenna location showing the following information:

Exhibit No. EE-2

A. Proposed transmitter location accurately plotted with the latitude and longitude lines clearly marked and showing a scale in kilometers.

B. Heights of buildings or other structures and terrain elevations in the vicinity of the antenna, indicating the location thereof.

C. Transmitter location and call signs of non-broadcast radio stations *(except amateur and citizens band)*, established commercial and government receiving stations in the general vicinity which may be adversely affected by the proposed operation.

D. Transmitter location and call letters of all AM, FM and TV broadcast stations within three (3) kilometers of the proposed antenna location.

SECTION V-A – AM BROADCAST ENGINEERING DATA (Page 6)

CERTIFICATION

I certify that I have prepared this Section of this application on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name *(Typed or Printed)*	Relationship to Applicant *(e.g., Consulting Engineer)*
R. Morgan Burrow, Jr., P.E.	Consulting Engineer
Signature R. Morgan Burrow Jr.	Address *(Include ZIP Code)* Mullaney Engineering, Inc. 9049 Shady Grove Court Gaithersburg, MD 20877
Date August 17, 1992	Telephone No. *(Include Area Code)* (301) 921-0115

ENGINEERING EXHIBIT EE-2:

RADIO STATION KINT(AM)
PASO DEL NORTE BROADCASTING CORPORATION
EL PASO, TEXAS
1150 kHz 0.38/5.0 kW U

NARRATIVE STATEMENT:

I. GENERAL:

This engineering statement has been prepared on behalf of Paso Del Norte Broadcasting Corporation. The purpose of this statement is to request an increase of the daytime power for KINT(AM) on 1150 kHz at El Paso, Texas. KINT proposes use its existing tower site and install a new five-kilowatt transmitter. KINT requests no change to its existing nighttime power of 0.380 kilowatt. The predicted horizontal-plane radiation of the non-directional antenna at 5 kilowatts power will be 665.722 mV/m at one kilometer.

This proposal is in full compliance with the new Docket 87-267 standards for domestic US stations and the Region 2 criteria for affected Mexican operations. All of the ground wave contours are based on the applicable M-3 or Region 2 conductivity maps with no measured conductivity data being used. The Mexican record XENVA2 allocated to Cuidad Juarez, Mexico on 1160 kHz. is defective. Details are discussed in Section D (Daytime Allocation Study) of this document. KEZB requests the staff to expeditiously process this proposal and not permit the patently defective Mexican record to delay grant.

This major change application provides full coverage of the El Paso, Texas city limits during daytime hours. The increase in people served (1990 census) by this proposal is 11,815 within the 0.5 mV/m contour. This does not include people who are residents of the adjoining border city of Cuidad Juarez, Chihuahua, Mexico.

The application is not a major environmental action, as defined by Section 1.1307 of the Commission's Rules. No new construction or alteration is proposed. The proposed facility is in full compliance with the FCC / ANSI Radiation Guidelines.

Answers to questions contained in F.C.C. Form 301, Section V-A, are incorporated in the following paragraphs, figures and tables.

II. ENGINEERING DISCUSSION:

A. Proposed Location:

KINT proposes to utilize its existing tower with no change in overall height or configuration. Figure 2 is a Topographic map showing the proposed site. The geographic coordinates are:

Latitude: 31° 45′ 13"
Longitude: 106° 24′ 58"

The site is located within the city limits of El Paso, Texas. The Regional Office of the FAA was not notified of this proposal since an existing tower will be used with no change in overall height.

B. **Antenna System and Tower:**

KINT proposes to utilize its existing tower which is equipped with a folded unipole antenna. The electrical length of the tower is 67.75 meters (222') above the base insulator including beacon. Figure 3 is a vertical sketch of the tower. Photographs showing the site are on file with the original KINT application. Derivation of the antenna efficiency (297.72 mV/m at 1 km for 1 kW) is explained in the September 22, 1987 Engineering Exhibit which is on file since a truncated ground system is used.

C. **Nighttime Service:**

No change is requested to KINT's present 0.38 kW nighttime authorization.

D. **Daytime Allocation Study:**

Figures 1, 1-A and 1-B deal with the daytime protection requirements. Figure 1 is an allocation map using M-3 and new U.S. conductivity criteria; Figure 1-A is an allocation map using Region 2 criteria. Figure 1-B lists potentially affected AM stations within 500 miles (804 kilometers). It should be noted the primary protections are to co-channel and first-adjacent facilities both in the United States and Mexico. The allocation maps illustrate both the present and proposed contours.

There is a defective Mexican record XENVA2 on 1160 kHz proposing one kilowatt daytime operation and 500 watts nighttime allocated to Cuidad Juarez in the AM Engineering Data Base. The proposed Mexican site is 4.24 miles (6.83 km) from KINT which presently operates from its site with one kilowatt power. A ground wave study will reveal severe first adjacent channel interference to KINT's present operation at all times (overlap of

0.5 mV/m contours). Furthermore, a skywave study using Region II criteria will reveal the Mexican proposal causes skywave interference in U.S. territory to the clear channel U.S. station KSL during nighttime hours. These items are in contravention of the Region II Agreement to which both the United States and Mexico are signatory. KINT assumes the Commission's International Branch is taking appropriate steps to deal with this patently defective Mexican record in the AM Engineering data base and will not allow it to delay processing of KINT's application.

E. Proposed Contours:

Figures 2 and 2-A are maps illustrating the proposed daytime service contours. Table 1 is a tabulation of the radiations and conductivities used to compute the various contours. Table 2 is a tabulation of the distance to KINT's proposed contours using domestic standards. Table 2-A is a distance to proposed service contours using International standards.

Population information was obtained through a computerized analysis of the census designated places population data contained in the 1990 Census.

F. AM Blanketing Contour:

The existing KINT tower is located in a mixed industrial-residential area near the Mexican border. The U. S. population within the 1000 mV/m blanketing contour is estimated to be less than 300 persons. Figure 2 shows the site and blanketing contour.

G. Other Services in Area:

There are four known AM Broadcast Stations within 3.2 kilometers of the proposed site. KELP (CP) is a directional station which was recently tuned with the KINT tower in the RF environment and now is in proof/program test status. The licensed KELP site has been decommissioned due to site eviction. KVIV is a non-directional facility located 1.36 mile (2.19 kilometers) from the KINT site. The remaining two AM operations are Mexican non-directional facilities each over 1.4 miles (2.25 km.) away. Since no alteration has been done to the unipole antenna or tower, special conditions on the KINT grant requiring before and after measurements (partial proofs) are not required. KINT will check for intermodulation products between its new transmitter and the nearby stations and take corrective action if required.

There are no known transmission facilities within 60 meters (197 feet) of the proposed antenna.

There are other AM, FM, TV, or two-way transmitters within 10 kilometers (6.2 miles) of the proposed site, however, based on the type of transmitter proposed, and the frequency and power involved no intermodulation interference problems with existing transmitting facilities is expected. Table 3 is a listing of those facilities. In the unlikely event some problems would occur, KINT will investigate and correct such cases in accordance with the Commission's Rules.

H. Environmental Assessment Statement:

KINT believes its proposal will not significantly affect the environment since it does not meet any of the criteria specified in Section 1.1307 of the rules. It should be understood that KINT will use its existing tower with no change in overall height. Consequently, the only remaining issue is that of R.F. Exposure. Specifically the proposed facility:

1. Will NOT involve the exposure of workers or the general public to levels of radiofrequency radiation in excess of the "Radio Frequency Protection Guide" recommended by ANSI (C95-1-1982).

The following is a more detailed discussion of this protection standard:

a. National Environmental Policy Act of 1969:

In 1969, Congress enacted the National Environmental Policy Act (NEPA), which requires the FCC to evaluate the potential environmental significance of the facilities it regulates and authorizes. Human exposure to Radio Frequency (RF) radiation has been identified as an issue the FCC must consider.

Beginning with the filing of applications after January 1, 1986, broadcast stations will be required to "certify compliance" with FCC prescribed guidelines on human exposure to RF radiation. The FCC is using as its processing guidelines, the American National Standards Institute's (ANSI) RF radiation protection guides (ANSI C95.1-1982). These exposure limits are expressed in terms of milli-watts per square centimeter.

These exposure limits are time averaged over any six minute period and vary depending upon the frequency involved:

Frequency Range (MHz)			Power Density (mW/sq.cm)	
0.3	**to**	**3**	**100**	**AM**
3	to	30	$900/(Freq^2)$	
30	to	300	1.0	VHF TV & FM
300	to	1,500	Freq/300	UHF TV
1500	to	100,000	5.0	

(same as ANSI standard)

AM BROADCAST STATIONS

For AM Broadcast Stations which operate between 540 to 1600 kHz the relevant quantities to be evaluated are the electric field strength (in Volts per Meter) and the magnetic field strength (in Amperes per Meter). Consequently, the 100 milli-watts per square centimeter limit given above converts to an electric field strength limit of 632 V/M and a magnetic field strength limit of 1.58 A/M.

For AM it is most convenient to refer to Table 1 of Appendix D of OST Bulletin No. 65 prepared by Robert F. Cleveland of the FCC Office of Science & Technology in October 1985. From this table the minimum safe distance from an AM tower can be determined for various levels of power. For convenience, the following is a reprint of the pertinent portions of that table:

Transmitter Power (kW)	Distance (Meters)	Transmitter Power (kW)	Distance (Meters)
0.10	<2	5.0	5
0.25	<2	10.0	7
0.50	<2	25.0	9
1.00	3	50.0	12
2.50	4		

(1 Meter = 3.2808 Feet)

A locked wooden fence exists that prevents access to the KINT transmitter building or tower. Furthermore, a new chain link perimeter fence, which is kept locked, has been built at the site which surrounds the tower and ground system; the nearest distance to the tower from the outer fence is over 100 feet. Both fences are posted with the NIEMR signs. Consequently, through the use of fences and warning signs No Radiation Hazard will exist.

Workers employed to climb the tower or work in a potential over-exposure location will not be permitted to enter the work area until cleared by the station manager or other responsible person. Appropriate warning signs will be posted to insure safety. In addition, KINT will establish and enforce work rules and safety procedures applicable in a potential over-exposure area. The rules will establish how close a worker can get to the antenna when it is operating at normal power and specify the power reduction required in order to make other locations safe. It is recognized that maintenance or installation work on or near the antenna will require the station to completely shut down. All employees, contract and other

persons having access to areas of potential exposure will be required to sign a site management guide indicating they are aware of and will comply with all safety rules.

III. SUMMARY:

KINT on 1150 kHz at El Paso, Texas, hereby requests permission to increase its daytime operating power to five kilowatts with no change in site or antenna structure. This engineering proposal is in full compliance with the Commission's Rules.

R. Morgan Burrow, Jr., P.E.
Maryland Registration No. 15811

August 17, 1992.

DECLARATION

I, R. Morgan Burrow, Jr., declare and state that I am a graduate electrical engineer with a B.S.E.E. from the University of Maryland and my qualifications are known to the Federal Communications Commission, and that I am an associate engineer in the firm of Mullaney Engineering, Inc., and that firm has been retained by Paso Del Norte Broadcasting Corporation, licensee of radio station KINT (AM) to prepare an application to increase daytime operating power. I am a registered professional engineer in the state of Maryland, the Commonwealth of Virginia, and the District of Columbia.

All facts contained herein are true of my own knowledge except where stated to be on information or belief, and as to those facts, I believe them to be true. I declare under penalty of perjury that the foregoing is true and correct.

R. Morgan Burrow, Jr.

Executed on the 17th day of August 1992.

```
  AA     M   M        AA     M   M        AA     M   M        AA     M   M        AA     M   M
 A  A    MM MM       A  A    MM MM       A  A    MM MM       A  A    MM MM       A  A    MM MM
A    A   M M M      A    A   M M M      A    A   M M M      A    A   M M M      A    A   M M M
AAAAAA   M   M      AAAAAA   M   M      AAAAAA   M   M      AAAAAA   M   M      AAAAAA   M   M
A    A   M   M      A    A   M   M      A    A   M   M      A    A   M   M      A    A   M   M
A    A   M   M      A    A   M   M      A    A   M   M      A    A   M   M      A    A   M   M
```

TITLE: KEZB EL PASO, TX
LAT/LON: 31.4513 106.2458
RADIUS:

CO	1ST	2ND	3RD	
500.0	350.0	150.0	100.0	Miles
804.7	563.3	241.4	160.9	Kilometers

FREQUENCY: 1120 to 1180 KHz
DAY/NITE: DAY
SORTED BY: DIST

DISTANCE (MILES)	DISTANCE (KM)	CALL	LOCATION		FREQ. (KHZ)	POWER (KW)	COORDINATES	FILE NO.	AZIMUTH FROM	AZIMUTH TO
0.00	0.00	KEZB	EL PASO	TX US	1150 Lic	1.00 ND1 Day	31.4513 106.2458	BL890712AA	0.0	0.0
** 4.24	6.83	XENVA2	CIUDAD JUAREZ	CH MX	1160	1.00 ND1 Day	31.4414 106.2908		254.5	74.5
133.16	214.31	NEW	NUEVA CASAS GRANDES	CH MX	1140	1.00 ND1 Day	30.2155 107.5842		224.4	43.5
192.65	310.04	XENVA2	OJINAGA	CH MX	1140	0.50 ND1 Day	29.3400 104.2400		141.1	322.1
237.87	382.81	KDEF	ALBUQUERQUE	NM US	1150 Lic	5.00 DAN Day	35.1206 106.3554	BL820917AM	357.5	177.4
256.18	412.28	KJBC	MIDLAND	TX US	1150 Lic	1.00 NDD Day	31.5855 102.0330		85.3	267.6
311.70	501.64	KCKY	COOLIDGE	AZ US	1150 Lic	5.00 DA2 Day	33.0027 111.3254	BL840709AD	287.5	104.7
336.17	541.02	XEJS	HIDALGO DEL PARRAL	CH MX	1150	1.00 ND1 Day	26.5610 105.3800		171.7	352.1
336.17	541.02	XEJS	HIDALGO DEL PARRAL	CH MX	1150	1.00 ND1 Day	26.5610 105.3800		171.7	352.1
362.27	583.02	XESO	CIUDAD OBREGON	SO MX	1150	5.00 ND1 Day	27.2935 109.5600		216.5	34.8
362.27	583.02	XESO	CIUDAD OBREGON	SO MX	1150	5.00 ND1 Day	27.2935 109.5600		216.5	34.8
367.88	592.04	XENVA2	CIUDAD ACUNA	CI MX	1150	0.50 ND1 Day	29.1818 100.5533		116.0	298.7
424.82	683.67	KVDL	QUANAH	TX US	1150 Lic	0.50 NDD Day	34.1858 99.4449		63.6	247.2
463.02	745.15	XEBF	SAN PEDRO DE LAS COLONIAS	CI MX	1150	1.00 ND1 Day	25.4520 103.0015		152.7	334.3
483.50	778.12	XEUAS	CULIACAN	SI MX	1150	10.00 ND1 Day	24.4834 107.2358		187.3	6.9

THERE WERE 15 AM STATIONS WITHIN 500.00 MILES OF THE REFERENCE COORDINATES

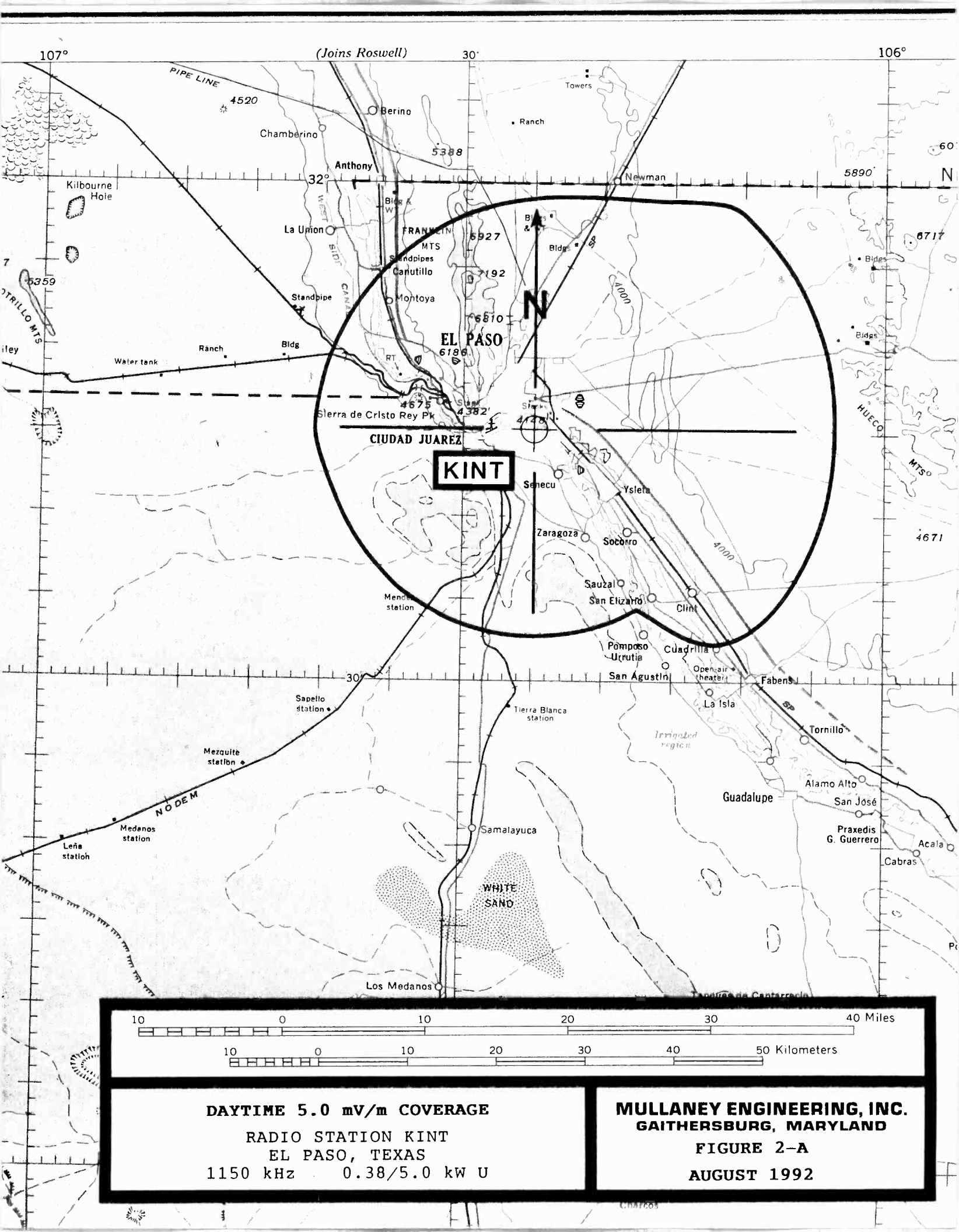
** - Defective Record

AUGUST 1992

MULLANEY ENGINEERING, INC.
GAITHERSBURG, MARYLAND

FIGURE 1-B
AM STATIONS WITHIN 500 MILES

RADIO STATION KINT
EL PASO, TEXAS
1150 kHz 0.38/5.0 kW U



DAYTIME 5.0 mV/m COVERAGE

RADIO STATION KINT
EL PASO, TEXAS
1150 kHz 0.38/5.0 kW U

MULLANEY ENGINEERING, INC.
GAITHERSBURG, MARYLAND

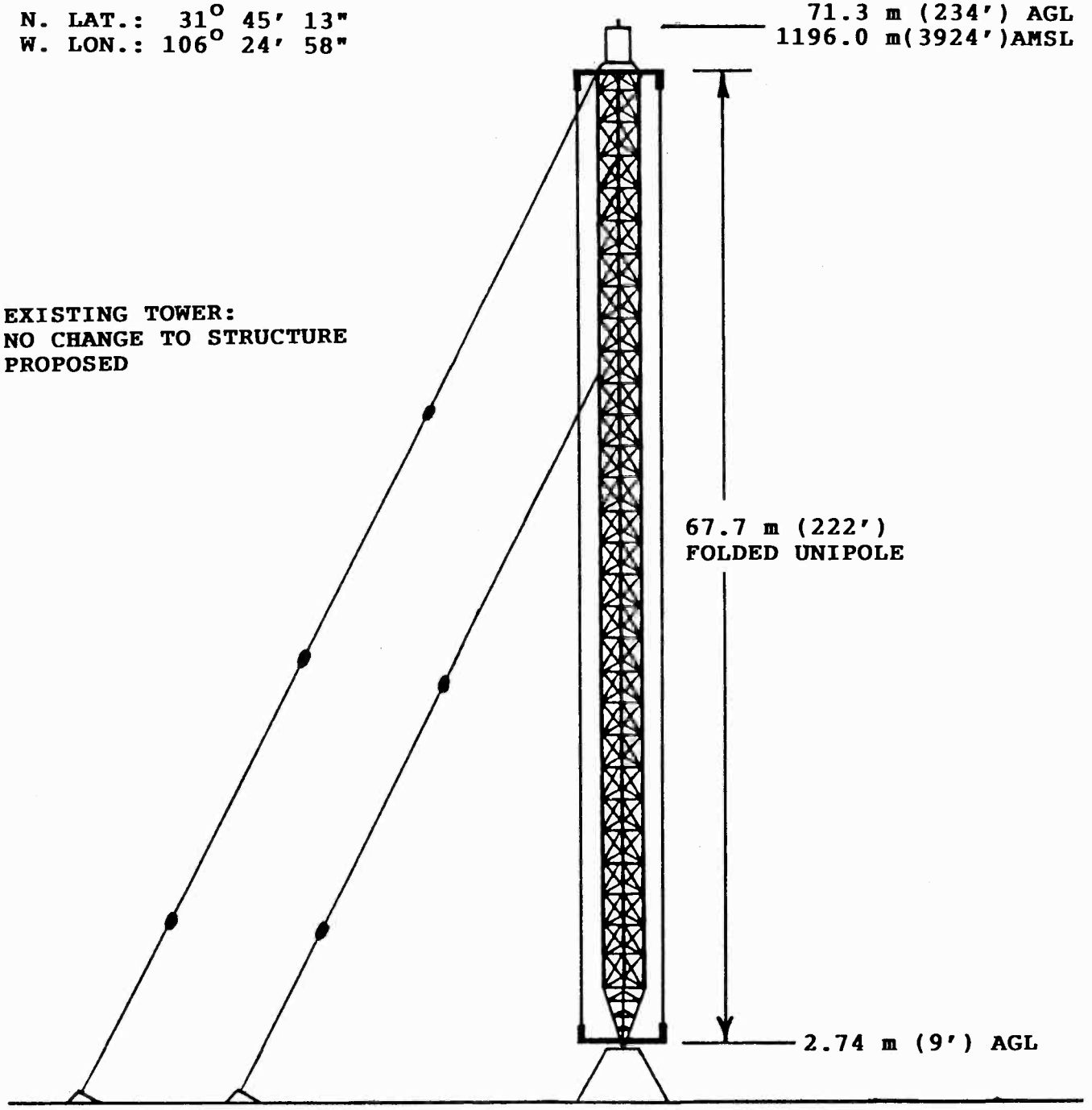
FIGURE 2-A

AUGUST 1992

PAINTING AND LIGHTING: IN ACCORDANCE WITH F.A.A. SPECIFICATIONS.

NOT TO SCALE OR SHAPE

N. LAT.: 31° 45′ 13″
W. LON.: 106° 24′ 58″



1124.7 m(3690′) AMSL

AUGUST 1992

MULLANEY ENGINEERING, INC.
GAITHERSBURG, MARYLAND

FIGURE 3
VERTICAL TOWER SKETCH

RADIO STATION KINT
EL PASO, TEXAS
1150 kHz 0.38/5.0 kW U

TABLE 1: M-3 CONDUCTIVITIES FROM PROPOSED SITE

KINT-P 1150 KHZ N.LAT: 31 45 13 W.LON: 106 24 58

' ' MEANS ESTIMATED CONDUCTIVITY, FROM M-3 MAP
'M*' MEANS MEASURED CONDUCTIVITY (MAIN BEARING)

ALL DISTANCES ARE IN KILOMETERS (New Metric curves)
ALL DISTANCES ARE CUMULATIVE

ALL RADIATIONS ARE IN MV/M AT ONE KILOMETER

AZIMUTH	RADIATION	REGION COND	REGION DIST	REGION COND	REGION DIST	REGION COND	REGION DIST
0.0	665.7	8.0	10.8	4.0	208.5	15.0	463.9
		4.0	568.7	2.0	1000.0		
5.0	665.7	8.0	11.6	4.0	211.2	15.0	435.4
		4.0	521.2	2.0	584.9	4.0	716.3
		8.0	852.5	15.0	898.6	8.0	1000.0
10.0	665.7	8.0	12.7	4.0	215.6	15.0	409.2
		2.0	666.3	8.0	704.5	15.0	935.6
		8.0	1000.0				
15.0	665.7	8.0	14.0	4.0	222.0	15.0	569.8
		2.0	617.8	15.0	977.5	8.0	1000.0
20.0	665.7	8.0	15.8	4.0	235.9	8.0	401.0
		15.0	1000.0				
25.0	665.7	8.0	18.2	4.0	230.2	8.0	381.1
		15.0	1118.0				
30.0	665.7	8.0	21.8	4.0	226.8	8.0	357.8
		15.0	978.9	30.0	1000.0		
35.0	665.7	8.0	25.7	4.0	226.9	8.0	301.3
		15.0	903.2	30.0	1000.0		
40.0	665.7	8.0	31.0	4.0	228.8	8.0	273.0
		15.0	598.0	30.0	1000.0		
45.0	665.7	8.0	39.3	4.0	201.6	8.0	233.5
		15.0	484.3	30.0	1000.0		
50.0	665.7	8.0	242.8	15.0	441.7	30.0	648.9
		15.0	672.4	30.0	756.5	15.0	841.6
		30.0	1000.0				
55.0	665.7	8.0	254.9	15.0	481.0	30.0	654.5
		15.0	852.7	30.0	1000.0		

TABLE 1 (continued)

KINT-P 1150 KHZ N.LAT: 31 45 13 W.LON: 106 24 58

AZIMUTH	RADIATION	REGION COND	REGION DIST	REGION COND	REGION DIST	REGION COND	REGION DIST
60.0	665.7	8.0	269.8	15.0	547.5	30.0	673.9
		15.0	871.2	30.0	928.8	15.0	963.1
		30.0	964.9	8.0	1000.0		
65.0	665.7	8.0	288.1	15.0	590.0	30.0	718.5
		15.0	810.5	30.0	954.5	15.0	1000.0
70.0	665.7	8.0	308.5	15.0	530.5	30.0	933.5
		15.0	1000.0				
75.0	665.7	8.0	333.4	15.0	530.0	30.0	746.2
		15.0	883.4	30.0	1000.0		
80.0	665.7	8.0	364.3	15.0	566.7	8.0	639.2
		15.0	899.1	30.0	1013.7		
85.0	665.7	8.0	404.7	15.0	496.8	8.0	657.2
		15.0	934.7	30.0	967.5	8.0	1000.0
90.0	665.7	8.0	738.0	15.0	865.5	30.0	893.8
		15.0	934.5	4.0	1000.0		
95.0	665.7	8.0	844.4	30.0	895.9	15.0	955.1
		4.0	1000.0				
100.0	665.7	8.0	838.6	15.0	1000.0		
105.0	665.7	8.0	810.5	15.0	951.2	30.0	1000.0
110.0	665.7	8.0	706.2	15.0	923.3	30.0	1000.9
115.0	665.7	8.0	497.8	3.0	543.5	8.0	546.3
		3.0	550.5	8.0	569.6	3.0	572.0
		8.0	727.1	15.0	914.8	30.0	992.5
		5000.0	1000.0				
120.0	665.7	8.0	431.3	3.0	677.1	8.0	775.5
		15.0	931.7	30.0	1000.0		
125.0	665.7	8.0	426.0	3.0	841.8	15.0	994.3
		30.0	1000.0				
130.0	665.7	8.0	4.0	4.0	4.8	8.0	437.4
		1.5	586.2	3.0	989.4	20.0	1000.0
135.0	665.7	8.0	3.4	4.0	6.2	8.0	59.5
		4.0	112.6	8.0	139.3	4.0	172.3
		1.5	208.8	8.0	421.6	1.5	720.4
		3.0	1000.0				
140.0	665.7	8.0	3.1	4.0	8.9	8.0	49.9
		4.0	184.3	1.5	258.0	8.0	326.9
		1.5	333.1	8.0	334.9	1.5	1000.0
145.0	665.7	8.0	2.8	4.0	15.9	8.0	43.2
		4.0	203.7	1.5	1000.0		

TABLE 1 (continued)

KINT-P 1150 KHZ N.LAT: 31 45 13 W.LON: 106 24 58

AZIMUTH	RADIATION	REGION COND	REGION DIST	REGION COND	REGION DIST	REGION COND	REGION DIST
150.0	665.7	8.0	2.5	4.0	237.7	1.5	613.9
		4.0	1000.0				
155.0	665.7	8.0	2.4	4.0	1000.0		
160.0	665.7	8.0	2.2	4.0	1000.0		
165.0	665.7	8.0	2.1	4.0	904.7	2.0	1000.0
170.0	665.7	8.0	2.1	4.0	756.0	2.0	1007.6
175.0	665.7	8.0	2.0	4.0	624.4	2.0	799.1
		4.0	1000.0				
180.0	665.7	8.0	2.0	4.0	526.1	2.0	695.8
		4.0	952.6	5000.0	1000.0		
185.0	665.7	8.0	1.9	4.0	452.5	2.0	664.7
		4.0	859.3	5000.0	1000.0		
190.0	665.7	8.0	1.9	4.0	405.1	2.0	633.2
		4.0	810.8	5000.0	1000.0		
195.0	665.7	8.0	1.9	4.0	373.4	2.0	590.8
		4.0	747.2	5000.0	1000.0		
200.0	665.7	8.0	1.9	4.0	348.9	2.0	536.3
		4.0	736.5	5000.0	955.0	2.0	1000.0
205.0	665.7	8.0	2.0	4.0	330.5	2.0	482.9
		4.0	655.4	5000.0	661.9	4.0	713.6
		5000.0	906.7	3.0	983.7	5000.0	1000.0
210.0	665.7	8.0	2.0	4.0	316.4	2.0	448.7
		4.0	644.0	5000.0	864.2	3.0	958.8
		5000.0	1000.0				
215.0	665.7	8.0	2.1	4.0	306.2	2.0	428.3
		4.0	623.8	5000.0	826.8	3.0	955.6
		5000.0	1000.0				
220.0	665.7	8.0	2.2	4.0	296.9	2.0	416.5
		4.0	626.1	5000.0	771.3	3.0	887.4
		5000.0	1000.0				
225.0	665.7	8.0	2.3	4.0	287.6	2.0	406.1
		4.0	593.2	5000.0	752.6	3.0	760.0
		5000.0	768.3	3.0	847.2	5000.0	1000.0
230.0	665.7	8.0	2.5	4.0	277.4	2.0	395.6
		4.0	619.7	5000.0	748.4	3.0	865.3
		5000.0	1000.0				
235.0	665.7	8.0	2.7	4.0	270.1	2.0	379.2
		4.0	622.2	5000.0	748.6	3.0	894.4
		5000.0	1000.0				

TABLE 1 (continued)

KINT-P 1150 KHZ N.LAT: 31 45 13 W.LON: 106 24 58

AZIMUTH	RADIATION	REGION COND	REGION DIST	REGION COND	REGION DIST	REGION COND	REGION DIST
240.0	665.7	8.0	2.9	4.0	262.3	2.0	351.2
		4.0	628.2	5000.0	731.1	3.0	854.9
		5000.0	857.1	3.0	919.8	5000.0	1000.0
245.0	665.7	8.0	3.3	4.0	254.4	2.0	308.9
		4.0	621.9	5000.0	730.5	3.0	828.6
		5000.0	1000.0				
250.0	665.7	8.0	3.7	4.0	246.8	2.0	271.9
		4.0	631.1	5000.0	746.5	3.0	833.2
		5000.0	1000.0				
255.0	665.7	8.0	4.4	4.0	175.3	8.0	176.4
		4.0	628.9	5000.0	773.0	3.0	873.3
		5000.0	1000.0				
260.0	665.7	8.0	5.3	4.0	178.8	8.0	250.1
		4.0	642.0	5000.0	801.6	3.0	915.9
		5000.0	1000.0				
265.0	665.7	8.0	6.9	4.0	187.9	8.0	434.9
		4.0	633.7	5000.0	793.3	3.0	920.7
		5000.0	1000.0				
270.0	665.7	8.0	7.7	4.0	197.6	8.0	512.9
		15.0	529.7	4.0	692.9	5000.0	717.8
		4.0	736.0	5000.0	798.8	3.0	952.5
		5000.0	1000.0				
275.0	665.7	8.0	7.4	4.0	202.0	8.0	363.3
		15.0	611.8	8.0	665.2	4.0	805.2
		3.0	988.3	5000.0	1000.0		
280.0	665.7	8.0	7.2	4.0	202.3	8.0	364.1
		15.0	631.1	8.0	767.2	15.0	788.7
		3.0	791.1	15.0	887.8	4.0	970.0
		8.0	1004.5				
285.0	665.7	8.0	7.0	4.0	200.6	8.0	385.1
		15.0	940.6	2.0	954.3	4.0	1019.0
290.0	665.7	8.0	6.9	4.0	198.7	8.0	441.3
		15.0	827.9	8.0	1000.0		
295.0	665.7	8.0	6.8	4.0	197.7	8.0	651.6
		15.0	836.7	8.0	1000.0		
300.0	665.7	8.0	6.8	4.0	196.9	8.0	232.6
		4.0	299.4	8.0	747.8	15.0	900.8
		8.0	1000.0				

TABLE 1 (continued)

KINT-P 1150 KHZ N.LAT: 31 45 13 W.LON: 106 24 58

AZIMUTH	RADIATION	REGION COND	REGION DIST	REGION COND	REGION DIST	REGION COND	REGION DIST
305.0	665.7	8.0	6.9	4.0	196.5	8.0	214.0
		4.0	377.4	8.0	804.2	15.0	964.7
		8.0	1000.0				
310.0	665.7	8.0	7.0	4.0	439.4	8.0	839.5
		15.0	995.2	4.0	1000.0		
315.0	665.7	8.0	7.1	4.0	256.5	8.0	271.4
		4.0	425.8	15.0	659.3	8.0	865.5
		15.0	993.2	4.0	1000.0		
320.0	665.7	8.0	7.3	4.0	239.2	8.0	286.4
		4.0	382.6	15.0	521.5	8.0	560.9
		15.0	756.8	8.0	801.9	30.0	905.3
		15.0	1000.0				
325.0	665.7	8.0	7.6	4.0	223.6	8.0	300.2
		4.0	310.3	8.0	484.4	15.0	537.5
		8.0	716.9	15.0	772.1	8.0	937.8
		15.0	1000.0				
330.0	665.7	8.0	8.0	4.0	223.5	8.0	699.3
		15.0	767.2	8.0	979.7	15.0	1000.0
335.0	665.7	8.0	8.5	4.0	222.2	15.0	262.4
		8.0	604.1	15.0	943.5	8.0	981.7
		4.0	1027.5				
340.0	665.7	8.0	9.1	4.0	215.9	15.0	313.6
		8.0	473.6	15.0	664.5	4.0	786.9
		15.0	858.9	4.0	990.7	15.0	1000.0
345.0	665.7	8.0	9.4	4.0	211.4	15.0	581.0
		4.0	776.4	15.0	876.9	8.0	959.1
		15.0	1000.0				
350.0	665.7	8.0	9.7	4.0	208.8	15.0	526.8
		4.0	730.6	15.0	810.1	8.0	996.3
		15.0	1000.0				
355.0	665.7	8.0	10.2	4.0	207.7	15.0	489.6
		4.0	621.5	2.0	951.4	8.0	1000.0

TABLE 2: DISTANCE TO DAYTIME AND BLANKET CONTOURS (US Method)

KINT-P 1150 KHZ N.Lat: 31 45 13 W.Lon: 106 24 58

Conductivities are from M-3 map.

All Distances are in KILOMETERS (New Metric curves)

All Radiations are in mV/m at one Kilometer

		Distance to Contours					
Azimuth	Radiation	1000.000	25.000	5.000	0.500	0.250	0.025
0.0	665.7	0.63	12.85	25.62	65.33	87.12	208.60
5.0	665.7	0.63	13.12	25.89	65.60	87.39	208.86
10.0	665.7	0.63	13.46	26.24	65.95	87.74	209.20
15.0	665.7	0.63	13.89	26.70	66.41	88.20	209.67
20.0	665.7	0.63	13.89	27.33	67.04	88.83	210.30
25.0	665.7	0.63	13.89	28.20	67.92	89.70	211.17
30.0	665.7	0.63	13.89	29.49	69.20	90.99	212.46
35.0	665.7	0.63	13.89	30.91	70.63	92.41	213.88
40.0	665.7	0.63	13.89	32.79	72.50	94.28	215.75
45.0	665.7	0.63	13.89	33.77	75.38	97.17	221.03
50.0	665.7	0.63	13.89	33.77	89.87	118.33	267.00
55.0	665.7	0.63	13.89	33.77	89.87	118.33	265.65
60.0	665.7	0.63	13.89	33.77	89.87	118.33	264.49
65.0	665.7	0.63	13.89	33.77	89.87	118.33	264.49
70.0	665.7	0.63	13.89	33.77	89.87	118.33	264.49
75.0	665.7	0.63	13.89	33.77	89.87	118.33	264.49
80.0	665.7	0.63	13.89	33.77	89.87	118.33	264.49
85.0	665.7	0.63	13.89	33.77	89.87	118.33	264.49
90.0	665.7	0.63	13.89	33.77	89.87	118.33	264.49
95.0	665.7	0.63	13.89	33.77	89.87	118.33	264.49
100.0	665.7	0.63	13.89	33.77	89.87	118.33	264.49
105.0	665.7	0.63	13.89	33.77	89.87	118.33	264.49
110.0	665.7	0.63	13.89	33.77	89.87	118.33	264.49
115.0	665.7	0.63	13.89	33.77	89.87	118.33	264.49
120.0	665.7	0.63	13.89	33.77	89.87	118.33	264.49
125.0	665.7	0.63	13.89	33.77	89.87	118.33	264.49
130.0	665.7	0.63	13.61	33.48	89.58	118.05	264.20
135.0	665.7	0.63	12.86	32.74	81.03	102.82	221.74
140.0	665.7	0.63	11.45	31.32	77.15	98.94	213.47
145.0	665.7	0.63	10.50	27.35	72.34	94.13	213.46
150.0	665.7	0.63	10.46	23.23	62.94	84.73	206.20
155.0	665.7	0.63	10.42	23.20	62.91	84.69	206.16
160.0	665.7	0.63	10.40	23.17	62.88	84.67	206.14
165.0	665.7	0.63	10.38	23.15	62.86	84.65	206.12
170.0	665.7	0.63	10.36	23.14	62.85	84.64	206.10
175.0	665.7	0.63	10.35	23.12	62.84	84.62	206.09

TABLE 2 (continued):

KINT-P 1150 KHZ N.Lat: 31 45 13 W.Lon: 106 24 58

Azimuth	Radiation	Distance to Contours 1000.000	25.000	5.000	0.500	0.250	0.025
180.0	665.7	0.63	10.34	23.12	62.83	84.62	206.08
185.0	665.7	0.63	10.34	23.11	62.82	84.61	206.08
190.0	665.7	0.63	10.34	23.11	62.82	84.61	206.08
195.0	665.7	0.63	10.34	23.11	62.82	84.61	206.08
200.0	665.7	0.63	10.34	23.11	62.83	84.61	206.08
205.0	665.7	0.63	10.35	23.12	62.83	84.62	206.09
210.0	665.7	0.63	10.36	23.13	62.84	84.63	206.10
215.0	665.7	0.63	10.37	23.14	62.86	84.64	206.11
220.0	665.7	0.63	10.39	23.16	62.87	84.66	206.13
225.0	665.7	0.63	10.41	23.18	62.90	84.68	206.15
230.0	665.7	0.63	10.44	23.21	62.93	84.71	206.18
235.0	665.7	0.63	10.48	23.25	62.97	84.75	206.22
240.0	665.7	0.63	10.54	23.31	63.02	84.81	206.28
245.0	665.7	0.63	10.61	23.38	63.10	84.88	206.35
250.0	665.7	0.63	10.72	23.49	63.20	84.99	206.46
255.0	665.7	0.63	10.88	23.65	63.36	85.15	206.77
260.0	665.7	0.63	11.14	23.91	63.62	85.41	211.00
265.0	665.7	0.63	11.59	24.37	64.08	85.87	210.06
270.0	665.7	0.63	11.84	24.61	64.32	86.11	208.91
275.0	665.7	0.63	11.74	24.52	64.23	86.01	208.12
280.0	665.7	0.63	11.67	24.44	64.15	85.94	208.00
285.0	665.7	0.63	11.62	24.39	64.10	85.89	208.15
290.0	665.7	0.63	11.58	24.36	64.07	85.86	208.42
295.0	665.7	0.63	11.57	24.34	64.05	85.84	208.58
300.0	665.7	0.63	11.56	24.34	64.05	85.84	208.71
305.0	665.7	0.63	11.58	24.35	64.06	85.85	208.80
310.0	665.7	0.63	11.61	24.38	64.09	85.88	207.35
315.0	665.7	0.63	11.66	24.43	64.14	85.93	207.40
320.0	665.7	0.63	11.73	24.50	64.21	86.00	207.47
325.0	665.7	0.63	11.82	24.59	64.30	86.09	207.56
330.0	665.7	0.63	11.94	24.71	64.42	86.21	207.68
335.0	665.7	0.63	12.09	24.86	64.58	86.36	207.83
340.0	665.7	0.63	12.28	25.05	64.76	86.55	208.02
345.0	665.7	0.63	12.37	25.14	64.85	86.64	208.11
350.0	665.7	0.63	12.49	25.26	64.97	86.76	208.23
355.0	665.7	0.63	12.64	25.42	65.13	86.92	208.56

TABLE 2-A: DISTANCE TO DAYTIME CONTOURS (INTERNATIONAL METHOD)

KINT-P 1150 KHZ N.Lat: 31 45 13 W.Lon: 106 24 58

Conductivities are from REGION2 map.

All Distances are in KILOMETERS (R-2 Metric curves)

All Radiations are in mV/m at one Kilometer

		Distance to Contours			
Azimuth	Radiation	25.000	5.000	0.500	0.025
0.0	665.7	12.15	25.02	66.69	217.79
5.0	665.7	12.33	25.20	66.87	217.13
10.0	665.7	12.56	25.43	67.10	216.06
15.0	665.7	12.86	25.73	67.41	216.18
20.0	665.7	13.27	26.14	67.81	216.59
25.0	665.7	13.77	26.64	68.31	217.09
30.0	665.7	13.94	27.32	68.99	217.77
35.0	665.7	13.94	28.29	69.96	218.74
40.0	665.7	13.94	29.77	71.44	220.22
45.0	665.7	13.94	32.22	73.89	227.39
50.0	665.7	13.94	34.06	93.86	271.08
55.0	665.7	13.94	34.06	93.86	272.12
60.0	665.7	13.94	34.06	93.86	273.29
65.0	665.7	13.94	34.06	93.86	273.95
70.0	665.7	13.94	34.06	93.86	273.95
75.0	665.7	13.94	34.06	93.86	273.95
80.0	665.7	13.94	34.06	93.86	273.95
85.0	665.7	13.94	34.06	93.86	273.95
90.0	665.7	13.94	34.06	93.86	273.95
95.0	665.7	13.94	34.06	93.86	273.95
100.0	665.7	13.94	34.06	93.86	273.95
105.0	665.7	13.94	34.06	93.86	273.95
110.0	665.7	13.94	34.06	93.86	273.95
115.0	665.7	13.94	34.06	93.86	273.95
120.0	665.7	13.94	34.06	93.86	273.95
125.0	665.7	13.94	34.06	93.86	273.95
130.0	665.7	13.94	34.06	93.86	273.95
135.0	665.7	13.94	34.06	93.86	263.17
140.0	665.7	13.94	34.06	99.17	257.20
145.0	665.7	13.94	34.06	99.49	257.51
150.0	665.7	14.15	34.34	100.86	258.89
155.0	665.7	14.82	38.08	103.34	261.37
160.0	665.7	15.01	38.26	103.28	261.31
165.0	665.7	15.08	38.34	103.35	261.37
170.0	665.7	15.12	38.38	102.75	262.69
175.0	665.7	15.15	38.40	101.99	261.51

TABLE 2-A (continued)

KINT-P 1150 KHZ N.Lat: 31 45 13 W.Lon: 106 24 58

Azimuth	Radiation	Distance to Contours 25.000	5.000	0.500	0.025
*******	*********	********	********	********	********
180.0	665.7	15.15	38.41	101.44	259.47
185.0	665.7	15.15	38.41	101.09	259.11
190.0	665.7	15.15	38.40	100.95	258.98
195.0	665.7	15.15	38.40	100.65	258.68
200.0	665.7	15.14	38.40	99.83	264.49
205.0	665.7	15.14	38.40	99.24	269.98
210.0	665.7	15.13	38.39	98.87	272.74
215.0	665.7	15.12	38.38	98.70	274.37
220.0	665.7	15.11	38.37	98.74	274.96
225.0	665.7	15.10	38.36	98.84	274.64
230.0	665.7	15.08	38.34	98.47	273.70
235.0	665.7	15.05	38.31	98.30	271.80
240.0	665.7	15.01	38.27	98.32	269.78
245.0	665.7	14.95	38.21	98.53	265.44
250.0	665.7	14.85	38.11	98.92	252.52
255.0	665.7	14.68	37.93	99.29	254.45
260.0	665.7	12.26	35.52	97.84	263.44
265.0	665.7	11.72	28.31	93.20	256.21
270.0	665.7	11.58	24.46	66.13	224.30
275.0	665.7	11.48	24.35	66.02	216.75
280.0	665.7	11.40	24.27	65.94	216.66
285.0	665.7	11.34	24.21	65.88	216.77
290.0	665.7	11.29	24.16	65.83	217.10
295.0	665.7	11.26	24.13	65.80	217.27
300.0	665.7	11.24	24.12	65.79	217.31
305.0	665.7	11.24	24.11	65.78	216.25
310.0	665.7	11.25	24.12	65.79	214.57
315.0	665.7	11.27	24.14	65.81	214.59
320.0	665.7	11.30	24.17	65.84	214.62
325.0	665.7	11.35	24.22	65.89	214.67
330.0	665.7	11.41	24.29	65.96	214.73
335.0	665.7	11.50	24.37	66.04	214.82
340.0	665.7	11.61	24.49	66.16	215.52
345.0	665.7	11.76	24.64	66.31	216.92
350.0	665.7	11.91	24.78	66.45	217.98
355.0	665.7	12.02	24.89	66.56	218.12

Site survey program within 10.0 km

Title: KINT-AM EL PASO, TX

Coordinates: 31-45-13 106-24-58

The nearest FCC monitoring station is 308 km distant at Douglas, AZ

This site is 0 km distant from the US/Mexican border.

*** Check appropriate US/Mexican agreements ***

This site is 1917 km distant from the US/Canadian border.

Type	Call sign	Chan	Auth	Height (m)	Power (kW)	City	State	Bear. (deg)	Dist. (km)
PL						Ascarate Park	TX	74.9	.84
PL						Clardy School	TX	313.6	1.12
PL						Ascarate Lake	TX	91.3	1.26
PL						Cooley School	TX	358.0	1.51
PL						Trinity Church	TX	319.0	1.68
AM	KEZB	1150	LIC	68	1	EL PASO	TX	.1	.00
AM	KELP	1590	LIC	46	5	EL PASO	TX	330.7	2.09
AM	KVIV	1340	LIC		1	EL PASO	TX	4.1	2.19
AM	KELP	1590	CP	38	5	EL PASO	TX	119.4	2.20
AM	XEFV	1000		87	1	CIUDAD JUAREZ	CH	220.9	2.29
AM	XEFV	1000		87	1	CIUDAD JUAREZ	CH	221.4	2.30
AM	XEF	1420		92	5	CIUDAD JUAREZ	CH	250.6	2.51
AM	XEP	1300		63	1	CIUDAD JUAREZ	CH	254.6	2.92
AM	XEFV	1000		87	1	CIUDAD JUAREZ	CH	205.8	3.56
AM	KTSM	1380	LIC	91	5	EL PASO	TX	83.9	3.84
AM	XEWG	1240		45	1	CIUDAD JUAREZ	CH	234.8	4.28
AM	KBNA	920	LIC	106	1	EL PASO	TX	116.0	4.51
AM	XEZOL	860		87	1	CIUDAD JUAREZ	CH	155.3	5.02
AM	XEZOL	860		75	1	CIUDAD JUAREZ	CH	155.3	5.02
AM	XEZOL	860		75	1	CIUDAD JUAREZ	CH	155.3	5.02
AM	XEZOL	860		75	.50	CIUDAD JUAREZ	CH	155.3	5.02
AM	XEPZ	1190		63	1	CIUDAD JUAREZ	CH	212.1	5.28
AM	XEPZ	1190		63	1	CIUDAD JUAREZ	CH	212.1	5.28
AM	XEYC	1460		63	1	CIUDAD JUAREZ	CH	212.1	5.28
AM	XEJCC	1520		49	50	CUIDAD JUAREZ	CH	162.4	5.46
AM	XECJC	1490		36	1	CIUDAD JUAREZ	CH	248.2	5.98
AM	XECJC	1490		36	1	CIUDAD JUAREZ	CH	253.8	6.11
AM	XECJC	1490		36	1	CIUDAD JUAREZ	CH	241.4	6.71
AM	XEROK	800		152	150	CIUDAD JUAREZ	CH	255.0	6.81
AM	XENVA2	720		102	1	CIUDAD JUAREZ	CH	254.8	6.82
AM	XENVA2	830		90	1	CIUDAD JUAREZ	CH	254.8	6.82
AM	XENVA2	1370		55	1	CIUDAD JUAREZ	CH	254.8	6.82
AM	XENVA2	1520		49	1	CIUDAD JUAREZ	CH	254.8	6.82
AM	XEJCC	1520		49	1	CIUDAD JUAREZ	CH	254.8	6.82
AM	XENVA2	1030		73	1	CIUDAD JUAREZ	CH	254.5	6.83
AM	XENVA2	1080		69	1	CIUDAD JUAREZ	CH	254.5	6.83
AM	XENVA2	1160		65	1	CIUDAD JUAREZ	CH	254.5	6.83
AM	XENVA2	1080		69	1	PIEDRAS NEGRAS	CU	254.5	6.83
AM	XEWR	1110		58	.50	CIUDAD JUAREZ	CH	253.6	6.91

Site survey program within 10.0 km

Title: KINT-AM EL PASO, TX

Coordinates: 31-45-13 106-24-58

Type	Call sign	Chan	Auth	Height (m)	Power (kW)	City	State	Bear. (deg)	Dist. (km)
AM	XEWR	1110		58	1	CIUDAD JUAREZ	CH	253.6	6.91
AM	NEW	640		117	.50	CIUDAD JUAREZ	CH	230.0	8.13
AM	XENVA2	890		84	5	CIUDAD JUAREZ	CH	145.1	9.55
AM	XEJ	970		70	10	CIUDAD JUAREZ	CH	145.1	9.55
AM	XEJ	970		70	10	CIUDAD JUAREZ	CH	145.1	9.55
FM	PRM	290				CIUDAD JUAREZ	CH	253.2	5.55
FM	XHH-FM	264	LIC	42	.29	CIUDAD JUAREZ	CH	250.5	6.76
FM	XHPX-FM	252	LIC		2.32	CIUDAD JUAREZ	CH	256.2	6.86
FM	XHEM-FM	278	LIC		3	CIUDAD JUAREZ	CH	256.0	6.89
FM	XHIM-FM	286	LIC		.76	CIUDAD JUAREZ	CH	255.8	6.92
FM	XHGA-FM	290	CP		3.40	CIUDAD JUAREZ	CH	255.8	6.95
FM	ALLOC	294				CIUDAD JUAREZ	CH	256.1	6.97
FM	XHNZ-FM	298	CP	600	100	CIUDAD JUAREZ	CH	256.1	6.97
FM	XHTO-FM	282	LIC		10	CIUDAD JUAREZ	CH	256.0	7.02
FM	KTEP	203	LIC	100	94	EL PASO	TX	302.6	7.11
FM	KXCR	208	LIC	333	.18	EL PASO	TX	305.9	7.43
FM	NEW	216	CP	340	.14	EL PASO	TX	305.9	7.43
FM	KAMZ	226	LIC	363	30	EL PASO	TX	305.9	7.43
FM	KBNA-FM	248	LIC	332	100	EL PASO	TX	305.9	7.43
FM	KPRR	271	LIC	363	100	EL PASO	TX	305.9	7.43
FM	KSET	234	CP	364	100	EL PASO	TX	305.8	7.45
FM	KSET	234	LIC	299	61	EL PASO	TX	305.7	7.47
FM	KEZB-FM	230	LIC	369	96	EL PASO	TX	306.0	7.53
FM	KLAQ	238	LIC	424	100	EL PASO	TX	307.4	7.84
FM	KHEY-FM	242	LIC	424	100	EL PASO	TX	307.4	7.84
FM	KAMZ	226	CP	433	100	EL PASO	TX	307.0	7.86
FM	KEZB-FM	230	CP	433	100	EL PASO	TX	307.0	7.86
FM	KTSM-FM	260	LIC	555	100	EL PASO	TX	312.5	8.51
FM	NEW-T	219	APC		.04	HORIZON CITY	TX	315.3	9.65
FM	KOFX	222	LIC	567	100	EL PASO	TX	314.9	9.71
TV	XEDI-TV	11		30	5	JUAREZ	CH	255.5	6.06
TV	NEW-T	54	APP	-28	33.6	EL PASO	TX	276.5	6.62
TV	ALLOC	20				JUAREZ	CH	256.1	6.97
TV	ALLOC	32				JUAREZ	CH	256.1	6.97
TV	ALLOC	44				JUAREZ	CH	256.1	6.97
TV	ALLOC	56				JUAREZ	CH	256.1	6.97
TV	KVIA-TV	7	LIC	265	316	EL PASO	TX	302.1	7.10
TV	KCOS	13	LIC	265	224	EL PASO	TX	302.1	7.10
TV	NEW-T	20	APC	319	.68	EL PASO	TX	305.9	7.43
TV	NEW-T	20	APC	319	.68	EL PASO	TX	305.9	7.43
TV	NEW-T	20	APC	319	.68	EL PASO	TX	305.9	7.43
TV	NEW-T	32	APC	316	2.71	EL PASO	TX	305.9	7.43
TV	NEW-T	32	APC	322	17.6	EL PASO	TX	305.9	7.43
TV	NEW-T	32	APC	340	17.4	EL PASO	TX	305.9	7.43
TV	NEW-T	32	APC	316	2.71	EL PASO	TX	305.9	7.43
TV	NEW-T	32	APC	340	17.4	EL PASO	TX	305.9	7.43

Site survey program within 10.0 km

Title: KINT-AM EL PASO, TX

Coordinates: 31-45-13 106-24-58

Type	Call sign	Chan	Auth	Height (m)	Power (kW)	City	State	Bear. (deg)	Dist. (km)
TV	KDBC	4	LIC	475	100	EL PASO	TX	307.0	7.86
TV	KINT-TV	26	LIC	457	2250	EL PASO	TX	307.0	7.86
TV	NEW-T	56	APP	364	47.4	EL PASO	TX	307.0	7.86
TV	XEPM-TV	2		29	9.45	JUAREZ	CH	227.7	7.89
TV	XEJ-TV	5		62	9.95	JUAREZ	CH	227.8	7.91
TV	KTSM-TV	9	LIC	582	316	EL PASO	TX	312.3	8.49
TV	KSCE	38	LIC	557	50	EL PASO	TX	315.3	9.65
TV	KJLF-TV	65	LIC	443	1000	EL PASO	TX	315.3	9.65
TV	KJLF-TV	65	CP	443	1600	EL PASO	TX	315.3	9.65
TV	KCIK	14	LIC	604	402	EL PASO	TX	314.9	9.71
TV	NEW-T	20	APC	498	.10	EL PASO	TX	314.9	9.71
TV	NEW-T	20	APC	498	.10	EL PASO	TX	314.9	9.71
TV	NEW-T	32	APC	524	1.36	EL PASO	TX	314.9	9.71
TV	NEW-T	32	APC	498	.10	EL PASO	TX	314.9	9.71
TV	NEW-T	32	APC	585	5.86	EL PASO	TX	314.9	9.71
TV	NEW-T	32	APC	498	.10	EL PASO	TX	314.9	9.71

Type	Name/ Location	HtAGL (m)	HtAMSL (m)	City	State	Bear. (deg)	Dist. (km)
TW		71	1196	EL PASO	TX	.1	.00
TW		55	1180	EL PASO	TX	280.7	.35
TW	6501 TROWBRIDGE	92	1233	EL PASO	TX	59.5	2.38
TW	6501 TROWBRIDGE	109	1255	EL PASO	TX	25.6	2.43
TW	COPPERFIELD INDUSTRI	93	1227	EL PASO	TX	83.9	3.84
TW		42	1239	EL PASO	TX	20.4	3.98
TW	6209 AIRPORT RD	24	1218	EL PASO	TX	15.2	4.09
TW	101 VOCATIONAL DRIVE	108	1231	EL PASO	TX	116.0	4.51
TW	101 VOCATIONAL DRIVE	108	1231	EL PASO	TX	116.0	4.51
TW	6257 AIRPORT RD			EL PASO	TX	12.2	4.70
TW	KILMARNOCH & DOUGHER	34	1242	EL PASO	TX	69.6	5.50
TW		18	1219	EL PASO	TX	41.6	5.70
TW	FT BLISS BLDG 56	47	1233	EL PASO	TX	345.0	6.28
TW	2419 N PIEDRAS ST	80	1283	EL PASO	TX	319.3	6.56
TW	304 TEXAS AVENUE	85	1214	EL PASO	TX	275.4	6.61
TW	MATTOX ST & MAYFLOWE	22	1226	EL PASO	TX	45.3	6.76
TW	9 BUTTERFIELD TRAIL	18	1211	EL PASO	TX	12.0	6.77
TW	3707 ADMIRAL ST	14	1220	EL PASO	TX	47.3	6.79
TW	NE CORNER E MAIN & M	92	1229	EL PASO	TX	276.5	6.83
TW	201 E. MAIN ST.	87	1222	EL PASO	TX	276.8	6.84
TW	600 S SANTA FE ST	128	1256	EL PASO	TX	269.0	6.90
TW	9424B MONTANA	12	1207	EL PASO	TX	32.6	6.92
TW	12 FOUNDERS BLVD	38	1233	EL PASO	TX	13.5	7.07
TW	COMMANCHE PK	91	1512	EL PASO	TX	302.1	7.10
TW	25 SPUR LANE	43	1235	ELPASO	TX	16.9	7.31
TW	WITHIN CITY LIMITED	77	1598	EL PASO	TX	305.2	7.40
TW	MOUNT FRANKLIN	88	1612	EL PASO	TX	305.9	7.43

Site survey program within 10.0 km

Title: KINT-AM EL PASO, TX

Coordinates: 31-45-13 106-24-58

Type	Name/ Location	HtAGL (m)	HtAMSL (m)	City	State	Bear. (deg)	Dist. (km)
TW	3.7 MILES OF	123	1653	EL PASO	TX	306.0	7.53
TW		76	1667	EL PASO	TX	307.4	7.84
TW	COMMANCHE PEAK	111	1702	EL PASO	TX	307.1	7.84
TW	220 WYOMING STREET	125	1710	EL PASO	TX	307.0	7.86
TW	7115 FT.BLISS	9	1237	FT.BLISS	TX	335.0	8.37
TW	1 MI W OF	113	1820	EL PASO	TX	312.5	8.51
TW	MT. FRANKLIN	112	1864	EL PASO	TX	314.8	9.69
HP	REDDINGTON BUILDING		3920	EL PASO	TX	332.4	4.07
HP	SIERRA MEDICAL CENTE		3838	EL PASO	TX	295.1	6.56
AP	EL PASO INTL		3956	EL PASO	TX	32.1	6.92
HP	PMH		3860	EL PASO	TX	282.6	8.28

134 records printed.

MULLANEY ENGINEERING, INC.
GAITHERSBURG, MARYLAND

FIGURE 2
LICENSED SITE
& DAYTIME 1000 mV/m CONTOUR

RADIO STATION KINT
EL PASO, TEXAS
1150 kHz 0.38/5.0 kW U

AUGUST 1992

EL PASO

KINT

Concordia Cemetery

Evergreen Cemetery

Clardy Sch

Cooley Sch

Burleson Sch

Trinity Ch

Loretto College

St Anthony Seminary

Hillside Sch

Alta Vista Sch

St Joseph Sch

Houston Sch

Radford Sch

St Albans Ch

Crockett Sch

Ball Park

Swimming Pool

Reagan

Calvary Ch

Hershey Sch

Central Ch

Bonham Sch

Hag Hill

Sant Juan Sch

Heal Sch

Dudley Field

Washington Park

Swimming Pool

Radio Towers

Bowie Jr and Sr High Sch

Engineer Hill Evaporation Ponds

Gas and Oil

Evaporation Ponds

Residue Ponds

Water

Chemical

Caiman Hills

Water

Gas Flares

Refinery

Well

Butane Propane

Refinery

Sulphuric Acid

Water

Drive-in Theater

SP Sub Sta

Well

SCARATE PARK

Anapamita Lake

Golf Course

Lakeside

Alfalfa

Water

Oil

Oil

Oil

SOUTHERN PACIFIC

TEXAS AND PACIFIC

RIO GRANDE

CHAMIZAL CONVENTION BDY

TEXAS

CHIHUAHUA

UNITED STATES

MEXICO

MONTANA

ALAMEDA

FRANKLIN CANAL

JEFFERSON

DAVIS

PLAZA

HIGHWAY

DRIVE

NORTH LOOP

CARLSBAD

RESERVATION BOUNDARY

CITY BDY

SALT FLA

SIERRA BLANCA 71 MI
VAN HORN 101 MI

TIGUA 1.6 MI
YSLETA 6.1 MI.

SAN JOSE 3.2 MI.
YSLETA 5.7 MI.

INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1975

47'30"
31°45'
106°22'30"
27'30"
25'

3514000m.N.
3568000m.E.

361 362 363 365 366 367

(YSLETA NW)
4747 III NW

(YSLETA)
4747 III NE

SCALE 1:24 000

1 MILE
7000 FEET
1 KILOMETER

CONTOUR INTERVAL 20 FEET
DASHED LINES REPRESENT 5 AND 10-FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

GN MN
0°45' 12°
13 MILS 213 MILS

UTM GRID AND 1973 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

1000 mV/m

TEXAS

QUADRANGLE LOCATION

ROAD CLASSIFICATION

Heavy-duty
Medium-duty
Light-duty
Unimproved dirt
Interstate Route
U.S. Route
State Route

EL PASO, TEX.

N3145—W10622.5/7.5

1955
PHOTOREVISED 1967 AND 1973

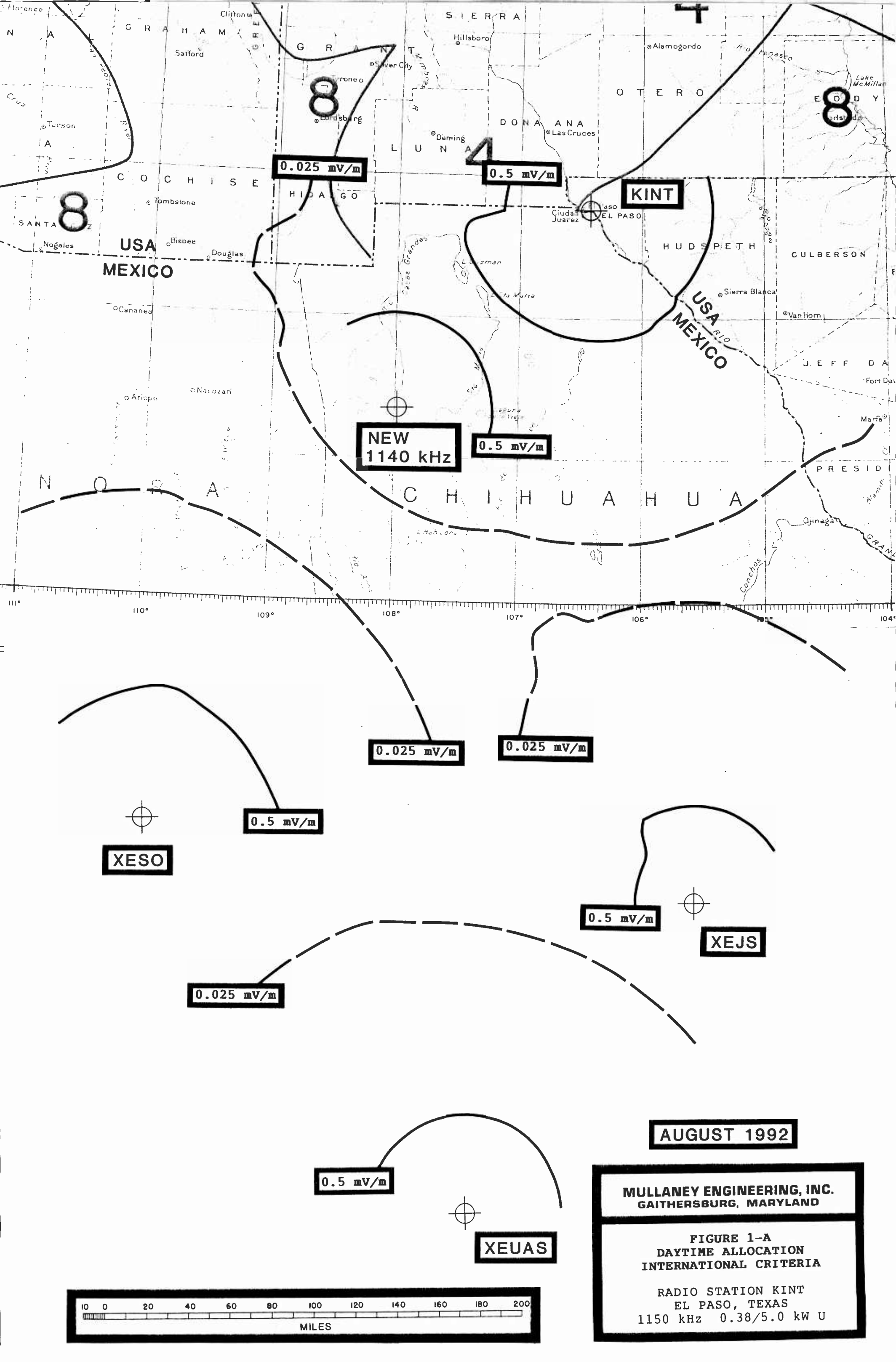
MULLANEY ENGINEERING, INC.
GAITHERSBURG, MARYLAND

FIGURE 1
DAYTIME ALLOCATION
UNITED STATES CRITERIA

RADIO STATION KINT
EL PASO, TEXAS
1150 kHz 0.38/5.0 kW U

AUGUST 1992

KDEF
0.5 mV/m
15
8
4
0.025 mV/m
KCKY
KINT
KJBC
(Joins D-1)


0.025 mV/m
0.5 mV/m
KINT
USA
MEXICO
NEW
1140 kHz
0.5 mV/m
0.025 mV/m
0.025 mV/m
0.5 mV/m
XESO
0.5 mV/m
XEJS
0.025 mV/m
0.5 mV/m
XEUAS
10 0 20 40 60 80 100 120 140 160 180 200
MILES
AUGUST 1992
MULLANEY ENGINEERING, INC.
GAITHERSBURG, MARYLAND
FIGURE 1-A
DAYTIME ALLOCATION
INTERNATIONAL CRITERIA
RADIO STATION KINT
EL PASO, TEXAS
1150 kHz 0.38/5.0 kW U