

Regionals Testimony Completed by Spearman

Paul D. P. Spearman, counsel for the National Association of Regional Broadcast Stations, completed their presentation before the Federal Communications Commission today at the allocation hearing when he took up the social and economic considerations vital to regional stations.

Mr. Spearman was subjected to cross examination by T. A. M. Craven, chief engineer of the Commission on behalf of the Commission, and questions were propounded through him at the direction of Chairman Sykes prepared by Louis G. Caldwell, counsel for the Clear Channel Group. It is expected that Paul M. Segal, counsel for a group of regional stations who have asked the Commission for an increase of power to 5 kilowatts, will present their case tomorrow. It is anticipated also that some time during tomorrow's session the National Broadcasting Company will present testimony.

Economic Questions

Mr. Spearman told the Commission at the beginning of his statement that his particular discussion would be limited to the social and economic questions involved.

"The group which I represent," said Mr. Spearman, "holds as fundamental and self evident truths that social and economic consideration and facts taken into account by the Commission and used as the basis for the future regulation of broadcasting transcend and outweigh in importance any question or questions of mechanics which might be given consideration or which might affect the future of radio broadcast regulation."

Mr. Spearman contended that regional broadcast stations are the backbone of American broadcasting. "The Association which I represent," he said, "has no quarrel with the networks as such. Chain programs have made possible the growth and popularity of broadcasting."

Regional stations, said Mr. Spearman, render unique program service to their communities and adjacent areas which it is difficult, if not impossible, for other classes of stations to duplicate.

Recommendations

"The National Association of Regional Broadcast Stations," said Mr. Spearman, "on the bases of the social and economic facts, which are of primary importance, and the technical facts as well, all of which we believe sincerely to have supported our proposals, once again most respectfully urges the promulgation of rules or changes in rules so as to permit the operation of regional stations with 5 kilowatt night power; permit duplication and operation of more than one station on the clear channels, and retain the present rules fixing 50 kilowatt as the maximum power with which any station will be regularly licensed to operate."

Paul D. P. Spearman

Mr. Spearman said:

The Broadcast Division of the Commission in giving its notice of this informal hearing, stated that its purpose was to obtain the most complete information available with respect to the broad subject of allocation, and emphasized that the data desired was not limited to technical or engineering facts, but included a request for the presentation of evidence with respect to social and economic considerations which should be considered in the formulation of regulations and standards governing the use of the band 550 to 1600 kilocycles. It was to make social, economic and engineering studies and to present the results of these studies at this

hearing that the National Association of Regional Broadcast Stations was organized. This Association is composed of licensees who operate a large number of regional broadcast stations, including commercial and non-commercial stations, as well as stations affiliated with national networks and commercial stations operating independent of such networks.

The National Association of Regional Broadcast Stations employed Mr. G. W. Pickard to direct the studies of technical questions affecting regional stations in particular and broadcasting in general. I was retained to direct and to present studies affecting the other phases of the regional stations' presentation. This particular discussion will be limited to the social and economic question involved, and if references are made to technical matters it will be because of the inter-relationship which may appear to make this necessary. It is not the purpose of this statement to deal with engineering questions as such, and the only technical references which will be presented in this discussion are those which may directly bear upon a proper presentation of the social and economic aspects of the questions being considered. Moreover, such reference as may be made to technical questions are based upon the main body of the engineering presentation which has been made on behalf of the Association by Mr. Pickard.

Importance of Social and Economic Considerations

The group which I represent holds as fundamental and self-evident truths that social and economic considerations and facts taken into account by the Commission and used as the basis for the future regulation of broadcasting transcend and outweigh in importance any question or questions of mechanics which might be given consideration or which might affect the future of radio broadcast regulation. These social and economic laws and facts cannot be measured with absolute precision or mathematical exactitude, yet they are the factors of paramount importance which should be reckoned with and first solved as far as possible before consideration is given to the mechanics of radio in the formulation of rules to guide and govern the future of broadcasting. After, and only after, the social needs and economic demands and limits have been determined can the Commission ascertain how and in what way the mechanics of broadcasting should be fitted into the result. The only reason for the existence of radio transmitters and receivers is to serve the social and economic needs and demands of the public. The public and its social problems do not exist merely for the purpose of being reached through the mechanics of radio and their interests should not, and we are sure will not, be subordinated to mere technical considerations. The public is the master and radio its servant. To set up engineering or technical rules and then attempt to fit the public needs into the resultant picture would be tantamount to the "tail wagging the dog." The group which I represent appreciates fully and is proud of the great advances made in the technique of radio. It is convinced that where engineering theories run counter to social demands and economic laws, the needs and demands of the public must control.

The Position of Regional Stations in Broadcasting

Regional broadcast stations are the backbone of American broadcasting. We do not believe this statement will be challenged. We do believe, however, that the importance of regional stations in the present structure and listener service of broadcasting and the important function they perform would not be amiss if pointed out here.

In the allocation of 1928 the Federal Radio Commission established three classes of stations, each intended to render a particular kind of service, i. e., clear channel, regional and local. Clear channel stations were provided for the purpose of rendering general service over large areas. Regional stations were created for the purpose of serving important communities and their adjacent areas of influence. Local stations were designed to serve localized needs in more limited territories.

Out of that allocation and from this classification of stations there developed a natural but important aspect of American broadcasting; specialization of function. Each class of stations was designed, and indeed best suited, to serve a particular function. Much of American radio broadcasting and the service which the public has received has developed since that basic allocation as the direct result of the natural working out of this specialization of function.

The principle of specialization of function strikes deeper into the broadcast structure and the daily operation of broadcast stations than might appear at first glance. Not only does it affect the range of radio signals, but it exerts a powerful and important influence upon the nature of the program service rendered and, as well, upon the economics involved.

Local stations more and more have come to develop program service designed to meet particular local needs and to fit into local demands and local psychology, finding in this development or evolution the only successful means of winning and holding listeners in competition with the network and larger and more prosperous stations. This specialization or concentration by local stations on local conditions and local factors has been a most constructive addition to the field of broadcast service and has added materially to the wealth and variety of listener service made available.

Program Service

The differentiation of program service between regional and clear channel stations has been less marked, just as the difference between their range of service and influence is at times less clearly defined. On the other hand, however, there has been a particularly noticeable tendency for the regional stations to be more and more closely allied to every civic enterprise of the community and area which it serves and to tie itself as closely as possible to the community life, the reference to community here being not only to the city in which a given station may be located, but includes as well the adjacent areas which it serves. Part of this policy has been dictated by clear channel competition, and part by desire to win and hold a loyal, local following in general. Again specialization of function has tended to develop a distinctive service on the part of many regional stations.

This specialization of function has also affected the economic operation of stations of various classes. Local stations have tended to specialize in local advertising and to render important service to smaller retail establishments. Regional stations have tended to serve and do serve those larger commercial concerns—department stores, local manufacturers, bakeries, and the like—interested in a wider area than the immediate locality and concerned with and desirous of reaching the entire trading area of the community. Regional stations from the beginning have served as important network outlets and in this way have served regional and national distributors in a most important capacity.

Clear channel stations have served and continue to serve as important links in the chain of American broadcasting. Their widespread coverage has, as would naturally be expected, given them less local interest and has tended to restrict their scope of local service and at the same time, so far as the circulation received outside of the community and its adjacent trading area is concerned, has introduced a large element of waste for the local advertiser.

Populous Areas

In more populous areas there is the grave question as to whether the clear channel station has performed any function different from that of the regional station enjoying good coverage. In many of these populous areas a clear channel station has served either as a key station or outlet station for networks, thus performing practically the same function and giving generally the same service of regional stations elsewhere which are affiliated with such networks.

Thus it is seen that the principle of specialization of function has worked itself out in the technical, social and economic fields and these three classes of stations may be compared roughly to three aspects of the press. The clear channel station may be compared to the large metropolitan daily with a large circulation scattered over a large portion of the country. The New York Times would

be an example in point. The regional station may be compared to the average city newspaper which constitutes the backbone of the American press as the regional stations constitute the backbone of American broadcasting. Finally, the local station is similar to the country press or to the neighborhood papers in the large cities. It might be said, however, that in community movements and community drives the large metropolitan daily with its scattered circulation may not be relied upon and such movements must depend for their success upon the local daily newspaper which builds its service around the city and its environs just as the regional station does.

Press and Radio

Analogies may be dangerous, but to the extent to which the press and radio are at all similar, this comparison serves to point out the development and the *value*, socially and economically, of specialization of function as it is found in American broadcasting. From it we may draw an important conclusion: that specialization of function and specialized service must be preserved in future allocation systems, and indeed, must be encouraged. This encouragement should not go so far as to injure any important class of stations rendering service to the American public unless it is conclusively shown that such injury will be more than compensated for by the added service rendered by any class so preferred in encouragement.

Regional stations have rendered and continue to render a distinctive and unique service to the listeners within the communities where they operate and this service is, as we pointed out, by no means limited to the immediate city but includes the areas in which the cities wield social and economic influence. 44 per cent of all the stations in the country are classified as regionals and number approximately 277. 78 per cent of all the stations affiliated with either the National Broadcasting Company or the Columbia Broadcasting System are regionals. If the regional stations which are affiliated with the Mutual Broadcasting System are considered, it is found that 80 per cent of all stations affiliated with all national networks would be placed in the regional category.

The Association which I represent has no quarrel with the networks as such. Chain programs have made possible the growth and popularity of broadcasting. Without the cost of producing programs of a high order which have been and are being carried by the networks being distributed over a large number of stations including a preponderance of regional stations, bringing about a relatively lower cost in the production of these programs, this excellent service to the listening public would have been economically impracticable, if not impossible. By directly or indirectly absorbing their share of these costs the regional stations of the country have made possible a high order of program service which would have been impossible without them. Again I repeat that regional stations are the backbone of broadcasting; have been and still are the backbone of national network service.

Regionals Serve Bulk

Moreover, regional stations serve the bulk of our population. Unlimited-time regional stations serve all of our important cities and their contiguous areas of influence. 48.9 per cent of all regional stations and 53.9 per cent of those which operate unlimited time are located in cities of 100,000 and over. Within 20 to 50 miles of these 93 largest centers live almost half of our entire population including a large rural population. 51.1 per cent of all regional stations and 46.1 per cent of all those operating unlimited time are located in cities having populations of less than 100,000. Thus it is seen that regional stations are widely distributed throughout the country and it cannot be disputed that the majority of the regional stations being located in cities of less than 100,000 population must and in actuality do serve the preponderance of the rural listeners of the country.

In addition, it is found that daytime and limited time regional stations are concentrated in the smaller towns where they render important rural service. As a matter of fact it is common knowledge that these stations build their programs around the needs and with the purpose of serving, reaching and appealing to large rural audiences. Further study with respect to the location of shared-time regionals disclose that these are situated in small towns and in large metropolitan communities. Being so situated they have catered to rural audiences on the one hand or localized neighborhood audiences on the other. Those who have catered to the latter serve principally as counter-parts of localized or neighborhood newspapers in these large centers.

The importance of regional stations in the economic fabric of broadcasting may be ascertained from the Commission's own records.

Study

A study was made of the regional stations which have regularly reported their revenues and expenditures to the commission and this study reveals that of approximately 277 regional stations in the country, 240 of them have been so reported. Taking into account the 240 regional stations so reporting and studied, their distribution over the country is found to be as follows:

<i>Size of Community</i>	<i>Number of Stations</i>	<i>Per Cent of Total</i>
under 50,000.....	62	25.7
50-99,000	37	15.4
100-199,000	43	18.0
200-499,000	53	22.1
500,000 and over.....	45	18.8
Total	240	100%

Of the entire group of regional stations mentioned, it is found that 141 of these are located in the 93 cities of the country having a population of 100,000 and over. It follows, therefore, that the other regional stations accounted for are located in cities or communities of 100,000 population or less.

When those stations which have regularly reported their revenues and expenditures to the commission are separated and the unlimited time stations are segregated, their distribution is found to be as follows:

<i>Size of</i>	<i>Affiliated with NBC or CBS</i>		<i>Independent</i>		<i>Total</i>	
	<i>16</i>	<i>Percent</i>	<i>17</i>	<i>Percent</i>	<i>33</i>	<i>Percent</i>
under 50,000....	16	14.6	17	31.0	33	21.7
50-99,000	18	16.5	8	15.1	26	17.1
100-199,000	23	21.1	11	20.7	34	22.3
200-499,000	32	30.2	11	20.7	43	21.7
500,000 and over	20	17.6	6	12.5	26	17.2
Total	109*	100%	53	100%	162	100%

* The latest count shows that there are actually 122 regional stations affiliated with NBC or CBS. The 109 accounted for are those which have regularly reported their revenues and expenditures to the commission.

Affiliations

From these figures it will be seen that 71.7 per cent of all the unlimited time regional stations of the country are affiliated with either the National Broadcasting Company or the Columbia Broadcasting System. It is therefore at once apparent and obvious that regional stations and networks are mutually dependent upon each other. The fact that the networks are using so many regional stations is proof of the present dependence of networks on regional stations.

As has been pointed out, 71.7 per cent of the unlimited time regional stations of the country are affiliated with and carry the network programs of the National Broadcasting Company and the Columbia Broadcasting System. According to the 1935 U. S. Census of Business, 22.2 per cent of the revenues of all stations in the United States came from national networks. This represents more than \$12,500,000 per annum and by far the largest number of stations in any one class participating in this revenue are the stations in the regional category.

A questionnaire was sent to regional broadcast stations asking for a breakdown of their revenue as to sources, *i. e.*, national network, regional network, national spot and local business. A tabulation and study of the responses made by 19 regional stations in various parts of the country shows that the average percentage of the total revenues received by these stations from national networks for 1935 was 27.4 per cent of their total revenues. While this is not a large number of stations, it is believed to be representative since the responses came from stations located in the various classification of communities by populations used heretofore. Moreover, the majority of the stations studied are optional and the minority of them are on the basic national networks. Had a majority of them been on the basic networks the percentage of revenues from network business would have been greater. If the cost of operating these 19 stations is deducted from their total revenues to ascertain the profit from operating them, and if then from the profit so arrived at the income from networks should be subtracted, it is found that taken as a group these 19 stations would be operated at an annual loss of \$111,798.00, or an average loss per station of \$5,884.00. 10 of these 19 stations would be operated at a loss if

they should lose their network business, while 9 of them would more than break even. If the cost of supplying sustaining programs to take place of the network programs which the stations receive from the networks should be added, this net loss would be much greater than \$111,798.00.

It is therefore apparent that the national networks and regional stations are mutually dependent upon each other. It is likewise clear that any disturbing influence which would affect the present relationship between networks and regional stations, particularly the revenues received from the networks, not only might but most certainly would adversely affect that class of stations which constitutes the backbone and mainspring of American broadcasting, and if such disturbing influence should so adversely affect the economic and financial structure of these stations it would just as surely depreciate the quality of service which the public has come to rely upon and which it has the right to continue to expect.

Further economic data will be presented in connection with specific questions to be discussed later in this statement.

Community Importance of Regional Stations

Regional stations render unique program service to their communities and adjacent areas which it is difficult, if not impossible, for other classes of stations to duplicate.

It is common knowledge, as already pointed out, that regional stations have affiliated themselves with and tied themselves to the peculiar interests of the communities in which they are located. It is well known that regional stations cooperate with all worthwhile civic organizations and give generously of their time and facilities to all such organizations and institutions throughout their entire service areas. Civic movements often reach beyond the mere boundary lines of the city in which a radio station is located. Many of these movements affect either directly or indirectly the areas adjacent to these cities and the urban dweller as well as the rural resident is often vitally interested in them. In this connection the regional stations of the country render a distinct and peculiar service. It is one of their natural functions and fields. As a rule local stations cannot cover these areas, and distant listeners not being interested in these movements, do not care to listen to the programs when carried by clear channel stations. Why should a listener in Mobile, Alabama, be interested in a discussion as to where a new high school building should be located in St. Louis, Missouri? And why should a listener in St. Louis be interested in a discussion as to what part of the city a municipal swimming pool will be located in Mobile? And why and on what theory would a cotton farmer in the South be interested in a program calculated to aid the wheat farmer of Iowa, and vice versa? The regional stations naturally fit into these uses to which radio can be and is put. They cooperate with the heads of the schools and school systems and render valuable aid to them since it is usual that the schools within the area served by a regional station have more or less the same problems. Like cooperation is given to colleges. This cooperation is rendered to both the academic and athletic fields. It is not limited merely to the regular schools and colleges, but in many instances it has reached out into the field of adult education and in cooperation with local school officials who understand the problems at hand and the psychology of those whom they seek to aid and has done yeoman service in furtherance and support of this worthy cause.

Economically Important

The cities of this country in which regional stations are located are not only economically important to their environs, but they are the cultural centers for these areas. The urban and the rural radio listener looks to these cities for cultural guidance and business leadership. Radio stations aiding in the handling and solution of cultural and economic problems certainly have more influence and carry much more weight than some distant station could hope to wield unless the economic structure of regional stations is so disturbed as to deplete their revenues and reduce the amount which they can invest in and spend for programs broadcast by them. They will remain influential and will be listened to only so long as they can afford to broadcast programs which will arrest the attention and hold the interest of their respective audiences, and no longer. If they should lose their audiences or any appreciable portion of their listeners, their value as an advertising medium will be proportionately reduced and their value to the communities in which they are located in cooperating with civic, education, cultural and economic forces and in furthering these interests will be dealt a death blow. This will be not merely a solar plexus to the regional stations of the country, but will be a mighty blow delivered against these highly important institutions and organizations.

As pointed out, not only the urban but likewise the rural listener looks to the cities and towns in which regional stations are located for cultural guidance. He enjoys listening to music and sermons from nearby centers. He learns to appreciate the cultural value of the local symphonies and the better local talent. His interest is stirred and he is persuaded to visit and make use of the local libraries. He becomes acquainted with its educational institutions and his outlook is broadened and his ambition and that of his children is increased. These are not mere passing fancies but are practical actualities and interest in them is more easily built at short range than from long distances.

Farmer Interested

The farmer may be somewhat interested in what the wheat quotations in Chicago are, what the cotton market may be in New York, New Orleans or Liverpool or what wool is bringing in New York City, but he and you understand that what he gets for his produce and what he received for his farm products is almost entirely determined by the markets in the cities in which regional stations are located. The housewife who lives in the medium or small city or on the farm is interested in knowing what the department stores in the nearby cities have to offer, and if interested at all in what some department store may be offering 500 or 1,000 miles away, her interest arises out of pure curiosity.

The urban dweller and the farmer and their folk want to hear national news, of course, but who would challenge the statement that they are not more interested in receiving news from a nearby regional station which covers the local territory? They are interested in knowing what the weather forecast is for their local areas and care little or nothing about what it is for some distant state. They prefer to hear the mayor of the local metropolitan center and other public officials discuss local economic and political questions. They prefer to listen to local forums and hear local conditions and local issues debated and aired. They prefer to listen to programs publicizing and aiding local drives for worthy causes than to hear like drives for the benefit of far distant cities.

These are among the limitless number of services for which regional stations are peculiarly fitted and which they render.

The foreign population and the population of foreign extraction in this country is largely concentrated in and adjacent to the cities in which regional stations are located, and regional stations are the natural medium for reaching these groups and they are reaching them with emphasis on Americanism. Programs of this character, if broadcast by stations having the coverage claimed for clear channel stations, would be done at the expense of an extremely high waste circulation. A very large percentage of those who would be reached in this way would be as disinterested in such programs as the listeners in one state would be in programs on conservation, agriculture and industry originating in a wholly dissimilar state and built around the specific and different problems of the latter.

Professor Edmund deS. Brunner in a recent publication entitled "Radio and the Farmer" has included some very interesting information. Of the services rendered to the farmers by national networks this publication shows that all of these programs are carried around the noon hour. Taking the states up one by one he points out the programs carried in the various states in the interest of those engaged in agricultural pursuits, and shows the day of the week and the time of day when these programs are broadcast. A study of this exhaustive list shows that almost all of them, like the national network programs, are broadcast during the daytime. In only three or four states is it shown that any programs of this nature are broadcast during the evening hours. The most amazing result of a tabulation of the stations which co-operate in this agricultural service is that more than 90 per cent of all these agricultural programs are broadcast by regional stations. We commend Professor Brunner's publication, "Radio and the Farmer", to the Commission as proof positive of the high order of service rendered to the rural listener by regional stations, coming as it does from an entirely neutral source.

Economic Service of Regional Stations

As will be seen from the distribution of regional stations already referred to, these stations afford advertisers coverage of the principal markets of the country. As was also pointed out, regional stations have played an important and indispensable part in building the national networks and are today the mainstays of both the National Broadcasting Company and the Columbia Broadcasting System. Regional stations account for probably half of the revenues of the entire broadcasting industry. We have already pointed

out that the average monthly revenues of stations as reported to the commission for the last license period before July of this year show that the average monthly revenues of the clear channel stations is in round figures a little more than \$1,380,000, and that all the regional stations accounted for average monthly revenues slightly in excess of \$2,000,000. (These figures do not include stations owned and operated by the national networks. The national networks operate both clear channel and regional stations and if these were accounted for, regional stations would still show that they receive approximately one half of the revenue paid to all stations of all classes.)

The results of an analysis of the business of 65 stations representing approximately 25 per cent of the volume done by the entire industry was made by Bernard Rose at the Wharton School of Finance and Commerce of the University of Pennsylvania indicated the following situations with respect to varying types of business prevalent over different classes of stations and pending the publication of detailed analysis of this situation in the final census report on the radio broadcasting industry, this is the most authoritative information available on the subject. These are similar to the results which have been reported in NAB Bulletins.

When non-network volume was considered it was found that 60 per cent of clear channel and high-power regional station volume was national and regional in origin and 40 per cent local. In the case of regional stations as a group, 35 per cent of their business was national and 65 per cent local. On local stations national business represented approximately 12 per cent and local business 88 per cent of their total revenue.

Advertising by Retailers

Advertising by retail establishments showed equally interesting concentration. In the case of clear channel and high-power regional stations 16.9 per cent of non-network business represented that from retail establishments. Regional station non-network business was 33.1 per cent retail in origin. 43.4 per cent of the total business done by local stations came from retail establishments, and if all advertisers whose business approached the nature of retail distribution were included, the proportion would have been much higher or close to 2/3 of the total volume of local station business.

Although the ratio of retail business advertising, to total non-network volume, is highest in the case of local stations, the largest dollar volume is probably found on regional stations. In 1934, on the basis of this study and other information available to him as to station non-network volume, Dr. Herman S. Hettinger of the University of Pennsylvania, estimated that approximately 56 per cent of all retail establishment advertising was done over regional stations, 24 per cent over local stations and 20 per cent over clear channel and high-power regional stations. (See "Some Fundamental Aspects of Radio Broadcasting Economics", *Harvard Law Review*, Autumn 1935.) These general conclusions as to the placement of business are generally in line with the conclusions which must be necessarily drawn from statistical data published in the reports of the National Association of Broadcasters. (See NAB Reports, V. 3, No. 33; V. 3, No. 36.)

With this preponderance of local business in favor of regional stations, the fact remains, as already pointed out, that these stations cannot continue their present high quality service unless they continue to hold and receive the revenues now being received from national network and national spot advertising. Moreover, these facts emphasize the economic importance of regional stations and unmistakably warrant, and, in fact, demand that their economic and indispensable service be safeguarded in any allocation system or in any changes which the Commission may make for the regulation of regional stations or the regulation of any other class of stations, which change in regulation might affect regional stations. They also show that local advertising is insufficient alone to support regional stations and guarantee the continuance of the present high order of service rendered by them.

The protection to which regional stations are justly entitled can be best effected by safeguarding the position of these stations in their natural markets. We have pointed out the service which these stations render; we have shown that they render a service which is not and cannot be rendered by any other class of station. That service and their importance to the whole listening public are such as to show clearly that these stations are the closest approach to fitting ideally into the statutory standard of public interest, convenience and necessity.

The proposals which the National Association of Regional Broadcast Stations makes for changes in existing regulations are based upon the premise that regional stations as a class are of such im-

portance and are rendering such service as to entitle them to the improvements which would inure to these stations and to the protection which they are entitled to enjoy and which they must have if they continue to be what they most certainly are—the backbone of broadcasting.

Proposals for Changes in Regulations

The National Association of Regional Broadcast Stations offers three definite proposals, two of which require changes in the existing rules and regulations of the commission, and the third requires no change as the Association submits that the present maximum authorized power of 50 kilowatts with which any station is authorized to operate should be retained.

These proposals are:

I

Change the present regulation limiting regional stations to the use of a maximum of 1 kilowatt power at night so as to permit their operation with 5 kilowatts power both day and night. To accomplish this, the Association respectfully suggests that the commission amend the last paragraph of Rule 120 so that as amended the last paragraph of that Rule will read as follows:

“The operating power of such a station shall not be less than 250 watts, nor during night time or day time, greater than 5000 watts.”

And further suggests that the commission amend Rule 123 so as to delete therefrom all that portion thereof which follows listing of frequencies in the Rule.

II

Maintain the present regulations which limit the maximum power with which any station will be regularly licensed to operate to 50 kilowatts.

III

Change the present regulations so as to permit the operation of more than one unlimited-time high-power station on the so-called clear channels. To accomplish this, the Association respectfully suggests the following specific amendments to the existing rules and regulations.

A. Amend Rule 116 so as to read as follows:

“116. The following frequencies are designated as high-power channels.”

and follow this with a list of frequencies as now set out in Rule 116, leaving out all reference to zones.

B. Amend Rule 117 so as to read as follows:

“117. The authorized power of a high-power channel station shall not be less than 5 kilowatts nor more than 50 kilowatts.”

C. Amend Rule 72 so as to read as follows:

“The term ‘high-power station’ means a station licensed to operate on a frequency designated as a high-power channel.”

Authorize Regional Stations to Operate with 5 Kilowatt Power at Night

The technical evidence already submitted by the National Association of Regional Broadcast Stations shows that if regional stations should be authorized to operate with 5 kilowatts night power instead of 1 kilowatt, the effect would be to increase the signal of such stations 2.2 times their present signal intensity throughout the entire service area of each regional station.

The commission has stated on numerous occasions that the minimum signal intensity of broadcast stations necessary to give satisfactory service in residential sections of urban communities is 2 MV/M. The basis on which this standard was established was the knowledge the commission had that in such communities the local noise level is of such intensity as to destroy the value of programs unless the radio signal was of such intensity as to overcome local interference, and the knowledge that a radio signal having an intensity of 2 MV/M was necessary to accomplish this.

In view of the great body of evidence which the commission has received to support its numerous findings that a minimum signal intensity of 2 MV/M is necessary to give reliable and satisfactory service in residential sections of urban communities, we are justified in assuming that such sections do not receive reliable and satis-

factory service if they must depend for their programs on stations the field intensity of which is less than 2 MV/M.

The Commission has stated generally that the protection which would be afforded regional stations would extend over the area in which a given station delivered a signal of 1 MV/M or greater.

Protection to Regionals

Taking the protection to regional stations of 1 MV/M and the commission's standard of a minimum of 2 MV/M signal intensity necessary to render satisfactory service to urban communities, it follows therefore, that listeners in residential sections of urban communities who are located between the 1 MV/M and the 2 MV/M contours of any station cannot and do not receive satisfactory and reliable radio service. If stations now licensed to operate with 1 kilowatt power at night should be authorized to operate with 5 kilowatts power at night the resulting signal would be 2.2 times as strong as the present signals are, and all listeners who now receive only 1 MV/M in signal intensity from these stations would receive a signal of 2.2 MV/M, thus providing, according to the commission's standard, satisfactory residential service to the thousands upon thousands of urban dwellers who now live outside, over, and beyond the 2 MV/M contour of practically all regional stations and inside their present 1 MV/M contours. This would be the result and is the improvement which can be expected even if the interference free service area of regional stations should remain constant. By “interference free service area” is meant the area in which the signal of any given station is not limited by heterodyne or cross-talk interference.

It has been argued by some that a horizontal increase of night operating power of regional stations would not extend their service areas beyond their present limits. Those who have argued thus do admit, however, that the signal intensity of the stations would be appreciably increased, and that the ratio of signal intensity to noise level would likewise be materially increased and improved. As already pointed out, such an increase in signal intensity and improvement by increasing ratio of signal to noise level, would bring thousands upon thousands of listeners who live in cities and towns within the primary and satisfactory night time service area of such stations.

Not Limited to Heterodyne

There are at least some few regional stations which are not limited by heterodyne and cross-talk interference to their 1 MV/M contours. This is shown by the commission's allocation survey of September 1, 1936, as the average satisfactory signal on which listeners depend at night, based on regional stations, is less than 1 MV/M. If the average is less than this intensity, certainly some of them must have been much lower. This is also supported by actual investigation made in other regional station areas. If the stations which operate on the same frequency occupied by WMC, for instance, should each use five times as much power at night, WMC would still be free from heterodyne and cross-talk interference out to and beyond its present 1 MV/M contour. It requires little argument to this commission which is conversant with the facts, to show or indicate what a material, and, in fact, wonderful improvement this would work in the service area of this station. It is therefore apparent that local interference or noise level and not heterodyne or cross-talk interference is the limiting factor marking the outer limits of areas within which reliable service from some regional stations is now possible. It is at the same time apparent that a horizontal increase in regional station operating power from 1 kilowatt to 5 kilowatts at night would actually expand service area of regional stations and make possible a satisfactory reception of programs broadcast by them by thousands upon thousands of listeners who cannot now enjoy this service.

Here, as everywhere in broadcasting, the all important question of economics enters and must be weighed and carefully considered along with the social benefits which would accrue to the public, if the upper limit for night time power for regional stations is raised from 1 kilowatt to 5 kilowatts.

Because programs from many commercial regional stations cannot now be satisfactorily received, because of local noise and local interference, even though in these areas their signals are free from heterodyne and cross-talk interference, they have lost many desirable advertising accounts and have failed to receive large revenues. These revenues could have been used for the general improvement of the stations and would have afforded wider latitude in building and broadcasting programs of a high order.

Reason for Discontinuance

It has been determined that the definite reason why some accounts were discontinued over regional stations was because the

individual responsible for the continuation of the business could not receive the programs satisfactorily in his home located in a populous residential area because of local interference although at these places the signals of the stations in question were free from heterodyne and cross-talk interference. In some of these cases which have been investigated, it was determined that if the signal was twice as strong as it is at present, the intensity would be sufficient to overcome the prevailing noise level and deliver satisfactory service. As examples of this, three accounts were lost by WNAC because of this condition.

Because of the same prevailing conditions, regional stations in many locations have been unable to induce prospective sponsors to make use of their facilities. Based on the information which we have received from a large number of regional stations, this condition seems to be a chronic condition and has tended to prevent regional stations from receiving increased revenues.

Since regional stations constitute close to half of all the stations in the country; do half the combined business of the industry; serve the social and economic needs of local trade areas, and cater to the cultural and business needs of these communities; and since the local advertiser pays taxes in the community served by regional stations, contributes to and supports the welfare organizations, adds to its social life and cultural influence and depends almost entirely on the area served by regional stations for existence; and since the listeners within such areas in return receive concessions from local business men and look to and depend upon them for economic leadership, the Association which I represent respectfully submits that regional stations should be permitted to increase the intensity of their signals so that the service rendered by them to their respective regional areas may be improved and made satisfactory. These principles and these facts were necessarily considered and finally determined in favor of regional stations and were the basis on which the commission necessarily acted in permitting regional stations to increase their day time operating power to 5 kilowatt.

Increasing the reliability of signals throughout regional station areas will definitely improve the service rendered by them; will enhance their value as advertising mediums, increase their revenues and generally improve the economic fabric of the stations. The program service given by any station depends very largely and, in fact, in the main on its income or on its financial and economic condition. It follows, therefore, that if by increasing the reliability of signals delivered by regional stations this will increase the revenues received, the ultimate effect will be to improve greatly the quality of program service which the stations broadcast.

Increasing Signal

These improvements which will result from increasing the signal intensity of regional stations within their respective trade areas will make listening to such stations easier for the public and will build larger, more loyal and more valuable audiences for all of them. The value of a station as an advertising medium depends upon the number of listeners and the regularity of their listening.

Mr. Pickard has spoken of the great benefits which many stations could secure from operating on staggered frequencies so that the carrier waves of these stations would be separated by more than the maximum difference in carriers which produce flutter and by less than the difference in cycles necessary to produce heterodynes. He has stated quite definitely that the ratio of desired to undesired signals on the same channel or frequency could be reduced to 10 to 1 in figures if the stations would but follow this system of operation, which they could do within the present deviation tolerance permitted by the Commission's Rules and Regulations. This is a new and great improvement over the improvements which we have detailed and if it is added to the other improvements which would be experienced by regional broadcast stations, it requires little or no imagination to calculate the vast benefits that operation of regional stations with 5 kw. power, day and night, on staggered frequencies would mean to the vast majority of American listeners.

It has been found somewhat easier to sell the services of regional stations to local advertisers, if the local advertiser is convinced that the station has been carrying a large amount of national business, as many advertisers believe that the popularity of a station is largely dependent upon national business for high quality programs. Thus, again, it is seen that if regional stations are to maintain their local business, they must at the same time retain their national business, and it is also seen that any disturbing influence which might reduce the national business carried by regional stations would tend to make them less desired by local advertisers.

We have attempted to ascertain what influence the operation of regional stations with 5 kilowatt day time power has had. Inquiry

was made of regional stations authorized to so operate, and, without going into cold statistical data, suffice it to say that the experience of every one of these stations from which responses were received shows that their business has been increased, their advertisers sponsoring day time programs have become better satisfied, their day time programs have been improved, and the listeners have received better service, both from the viewpoints of better signals and better programs. A greater number of listeners have been able to receive their programs as a natural consequence.

For these and for numerous reasons already stated, the Association is convinced that like results and experiences would follow if the commission should authorize regional stations to operate with 5 kilowatt power at night.

Further Inquiry

Further inquiry of regional stations authorized to operate with 5 kilowatt day time power indicates that the increased cost in technical operation with 5 kilowatt day time power has been relatively slight. For 5 representative stations which furnished authentic and reliable data to the Association as to the increased costs of operation with 5 kilowatt day power as compared to costs of technical operation before shifting over from their low operating powers, it is found that the average rise in technical operating expenses was 18.9 per cent. These stations have the necessary equipment to operate with 5 kilowatt power at night as well as during the day time. They have necessarily had to provide practically all of the prerequisites necessary for operating with 5 kilowatt power at night and on the basis of the facts reported by these same 5 representative stations, it is found that the increased cost to cover mechanical operation with 5 kilowatts power at night time would be another 2.58 per cent. This cost would be largely for power and tube replacements and like expenses.

In these inquiries information of the most exact nature was asked for and received touching the question of program expenditures. It is interesting, if not indeed heartening, to note that these five stations which were studied in detail have shown a definite willingness to increase their program expenditures materially. The average increase made by them in program expenditures when they were authorized to operate with 5 kw. day power was 12.73 per cent, and it is estimated that these program expenditures would be increased by another 17 per cent if they were authorized to operate with 5 kw. night power. These increased expenditures would be met because the stations would be more valuable to advertisers, and because they would become more valuable, the advertisers would not object to reasonable increases in rates. This is shown by the fact that regional stations operating with 5 kw. power day time could increase their day time rates and instead of losing business increase their revenues. It is only reasonable to expect like results from 5 kw. night time operation.

Experience of Regionals

Based on the experience of regional broadcast stations in general, and more particularly upon the specific information which has been furnished by stations having experience in operating regional stations with 5 kw. day time power, there can be little if any question but that the increased volume of business would easily offset the relatively small increased cost of operation which would arise out of regional stations operating with 5 kw. night time power.

That reasonable increases in station rates may be made is also shown from the most reliable estimate of radio receivers now in operation, as compared to the number in use in 1930. This increase in the number of radio sets in use has increased the potential audiences so that more valuable results accrue to the advertiser. The official 1930 census showed that there were 12,078,000 radio families in the country. The Joint Committee on Radio Research (maintained by the National Association of Broadcasters, the Association of National Advertisers, and the American Association of Advertising Agencies) in its report issued July 2, 1936, showed 22,869,000 radio families in the United States in 1936, or a gain of 94.2 per cent over the number shown by the official census of 1930.

Compared to 1931, station rates in 1934 had declined 8.6 per cent. This decline has probably been made up since then, but it is doubtful if the 1931 rates have been exceeded. (*Harvard Business Review*, Autumn 1935, p. 24.) With the potential radio audience almost doubled, it would seem fair to assume that regional stations would be able to increase their rates to meet any added cost of operation growing out of their being authorized to use 5 kw. power at night.

With the increased and constantly increasing number of families having radio receiving sets, the reliability of radio signals should increase at least to the same extent. The technical evidence which has been adduced on behalf of the regional Association shows what vast improvements would be made in the reception from regional stations if the commission should authorize their operation with 5 kw. at night. This is so conclusively shown by the technical evidence, and from this irrefutable evidence it appears with such complete certainty that the percentage of listeners who could receive reliable service from regional stations is so great that when all the evidence as to effect and result is taken into account it is hard to find any logical argument which can be used against such an increase in power for regional stations. We have tried to anticipate what, if any, reasoning could be interposed against the proposed increase in power, and we have frankly been unable to find any disadvantage which would result from such an increase that approaches anywhere near in importance the great improvements which such an increase would bring about.

Argument in Opposition

The only argument which has been advanced in opposition to granting 5 kw. power at night to regional stations is the argument that at some time in the future the commission might find it desirable to authorize the construction and installation of a new regional broadcast station in some small city which does not now have such a regional station, and the argument that such a small city might not be able to afford commercial support for a 5 kw. regional station, although it might support a 1 kw. station. We have already shown from actual experience of representative stations that the cost of technical operation incident to a 5 kw. regional station so far as daytime costs are concerned is, on the average, only 18.9 per cent. We have also shown that on the basis of the actual experience of these same representative stations it is estimated that if those stations which are now authorized to operate with 5 kilowatts power during day time and licensed to operate with 5 kw. at night, the increase in the cost of mechanical operation will be only 2.58 per cent. From this it is deduced that if those stations are permitted to operate with 5 kw. both day and night the additional mechanical and technical cost of operation will be 21.48 per cent greater than was their average technical and mechanical cost of operation before they began operating with 5 kw. day power. While this increase in cost of operation by 21.48 per cent might be considered great if that percentage was based on a basic cost of operation which ran into the hundreds of thousands of dollars, yet the fact remains that this increase in cost of operation, in dollars and cents, and from a practical viewpoint nowhere near approaches the practical effect if like increases in power should be made in some other station class. To say the most which can be said in support of such argument, in the final analysis, leads to the simple conclusion, on a practical economic basis, that if a city can not support a regional broadcast station operated with 5 kw. power both day and night, there is the gravest doubt that such a city could or would support a regional station which operated with only 1000 watts power.

Although we have, as already stated, tried to ascertain and determine what, if any, logical reasons or argument could be offered in opposition to the proposal that regional stations be authorized to operate with 5000 watts power during night as well as during daytime, the one mentioned is the only argument we have heard advanced and the reasoning used in support of such an argument fails of its own weight.

Increased Power

The National Association of Regional Broadcast Stations in asking that the upper limit of permissible night time power for regional stations be changed so that the rule will fix the maximum night time power at 5 kilowatts instead of the lower powers now provided. It is clear from the commission's notice calling this hearing and the thought which runs through it that what the commission is interested in is in ascertaining what general policy should govern and what general rules should be applied to broadcasting in the future. It is just as definite from the notice that the commission is not interested in having presented at this hearing evidence in support of any individual station or small group of licensees which may be operating regional stations. In keeping with what we understand the notice to mean, we respectfully submit that the commission's rule fixing 1 kilowatt as the maximum night time power with which any regional station will be permitted to operate should be changed and with just as much sincerity we urge that the rule which limits the power of regional

stations operating on Canadian-shared channels to even less power should be changed so that the maximum power permitted will be uniform and that all regional stations may come within a single rule so far as the maximum authorized power is concerned.

We believe that so far as stations operating on exclusive American regional frequencies are concerned, there is no good reason why this change should not be made and every reason why it should be made.

Although the United States has a gentleman's agreement with Canada and is a party to the Madrid Treaty of 1932, we still cannot see any reason for fixing the power limits for stations operating on Canadian-shared channels as they are in the existing rules and regulations of the commission. Should the Canadian authorities find it desirable to increase the power of Canadian stations operating on regional frequencies shared with this country, it would be necessary for American stations operating on these frequencies to make like increases in their operating powers. To fix the maximum power permitted uniformly for all regional stations does not mean that the commission would automatically permit all of them to operate at such maximum powers. To keep a rule in force when this possibility points to becoming a probability serves no good purpose.

Ask General Rule

As we have already tried to make clear, this Association is asking that the general rule fixing the limit on power which a regional station may use be changed not for the benefit of any individual licensee or small group of licensees. We submit that to pick out and set aside a limited number of regional channels and to authorize them to operate with 5 kw. power day and night on the basis of engineering or technical considerations only is to lose sight of the two controlling factors which should, and we are sure will, guide the commission in this matter. The economic and social considerations involved, as already emphasized, must be first considered and determined. If only a small number of regional stations should be permitted to increase their night time operating power to 5 kw. on the basis of technical considerations only, it might be and probably would be found that many other regional stations are so located that the economic and social demands are such as to require an increase in operating power and this requirement for the latter might exceed in importance the benefits which would come from increasing the power of a limited number of regional stations without regard to the social needs and economic demands of the listening public.

Change in Rules

The National Association of Regional Broadcast Stations takes the unqualified position that the change in the rules should be made general and should apply to regional stations as a class, and that individual applicants should be permitted to apply for authority to increase their respective operating powers and the commission in turn should decide such individual applications on the basis of the economic, social and technical questions involved in considering them. Can the commission, without inquiry or other knowledge except the separations involved between stations and without knowing the needs and demands of the public which are served by them, pick out at this great distance on the basis of technical considerations and nothing more, the most meritorious cases for increasing operating power of regional stations? We submit that to ask this question makes impossible the giving of but one sensible answer, and that answer is most certainly in the negative. This, to this Association, appears conclusive that the change should be made so as to apply generally and so as to permit individual applicants or groups of applicants operating stations on common frequencies to come in and urge the merits of their respective cases. It appears just as conclusive that to pick out a few without regard to their merits and without considering the social and economic questions involved and to give them authority to increase their operating power without giving it to others would be most unfair, both to the regional station licensees and even to a greater degree to the American public.

Opposition to 500 kw. Station Menace

Consideration of any basic radio policy, including the proposal to establish 500 kw. stations, must begin with an investigation to determine what are the fundamentals which govern the development and operation of a broadcasting system. Unless such fundamentals are considered and carefully weighed in the light of the results to be expected in the future, it will be impossible to evaluate the effect of the policy being studied or contemplated.

We begin with the axiomatic assumption that the sole reason for the existence of a broadcasting system is the fact that people listen to radio programs. The listener is the sole excuse for broadcasting and the service the listener receives, together with his viewpoint, must dominate all radio policy.

Listening to a broadcasting system or any of its component units implies two things: (1) The ability to receive and hear the signal of one or more stations and (2) the desire to listen to the programs conveyed by the radio signal or signals in question. Both the technical and program aspects of service to the listener, therefore, are to be considered as fundamental in the development and determination of radio policy and they are controlling factors which must guide the commission in formulating regulations to govern the future of radio broadcasting.

Providing an adequate signal and program service requires the expenditure of large sums of money, which must be raised from some source before it is disbursed for either purpose. Economic laws and economic aspects of listener service therefore are as fundamental, as important and as controlling as are the program and technical questions involved.

These fundamental facts with respect to economics, program service and technical operation lead inevitably to this conclusion: Any system of allocation must be able to be justified on three bases:

- (1) Any station or class of stations included in any such system of allocation must render unique and fundamental listener service.
- (2) It must be economically practicable.
- (3) It must be technically feasible.

We do not believe that these fundamentals or the fact that they must be considered as fundamental in determining policy to guide and govern future broadcasting will be challenged.

In the light of these fundamentals and the dominating and controlling influence which they should exert, we submit that the proponents of super power stations who would have the commission authorize the operation of stations with 500 kw. power must show three things:

- (1) That 500 kw. clear channel stations will render unique listener service which is not available and which cannot be provided under the existing broadcasting structure.
- (2) That such stations will be economically practicable as a group, and the economic practicability of super power stations must be judged on the basis of a large number of 500 kw. stations and not on the isolated existence of one or two.
- (3) That the creation of such stations will in no way impair or disturb the fundamental service rendered by important classes of existing stations.

Tests Fundamental

We maintain that 500 kw. stations can meet none of these three tests. These three tests standing separately are each fundamental.

The principal argument which has been advanced from the allocation of 1928 to this day to justify the necessity for this type of station has been the service which it was alleged such stations would render to rural listeners. This claim has been based largely upon the theory and conjecture, and more recently on a post card and interview survey made public by the commission in its allocation of September 1, 1936, although we know they do render a very worthwhile service to rural listeners.

Allocation Survey

We respectfully suggest and urge that those references in the allocation survey released on September 1, 1936, dealing with listener behavior be wholly disregarded in any determination of future policy having to do with the allocation of radio facilities. This sincere request is based on the fact that the post card and interview survey in question, both in basic technique and in the presentation of results, follows few if any of the principles of sound research and is of no practical value.

To be more specific, the short-comings of this survey may be summarized as follows:

1. The questions asked on the post card are of such a nature and are stated in such a way as to be completely invalid as a means of collecting information for use in determining what principles should govern the allocation of radio facilities.
2. The sample gives indication of being entirely too small to allow for the drawing of any final conclusions from the informa-

tion secured. The number of post cards returned to the commission constitute but a small fraction of 1 per cent of the radio homes of this country.

3. The units used in the tabulation and summarization of the information collected are such as to make a detailed scientific analysis, and therefore, deduction of sound conclusion impossible. The survey refers only to states and the returns are not broken down into any units smaller than the states.

4. Such conclusions as have been drawn appear superficial and some of them at least are open to serious question.

Post Card Survey

While these faults and objections relate principally to the post card survey, they hold with equal, if not greater force, in the case of the listener interviews conducted by the commission's field inspectors.

Considering first the post card, we find the questions asked are not valid means of securing any fundamental information worthy of consideration. The desired information might be of two kinds: It might be desired to determine (1) which stations rural listeners in various parts of the country *could hear* most satisfactorily. The stations should preferably be listed in the order in which their signals were acceptable from the viewpoint of strength, clarity and reliability. Or else, the information requested might be designed to determine (2) which stations rural listeners in various specific parts of the country *listen to regularly*, the stations preferably being listed in the order of the amount of time which each of them was used on the average. If a large enough and sufficiently representative group of questionnaires was returned on the first of these points, one might be able to derive from them a general idea of where various stations and classes of stations *could be heard*. A similar representative sample on the second point would give a general idea of the habitual use of stations.

It should be noted with emphasis that *habitual use and ability to receive* signals are two different matters. Listening to a radio station is compounded by (1) the ability of the listener to hear its signal and (2) the desire of the listener to hear the programs broadcast by that signal. Habitual listening is therefore the result of signal *and* programs. Listening by no means varies directly with quality and reliability of signal alone; listeners, if necessary, being willing to put up with a certain degree of inferiority of signal if this is compensated for by program superiority. The listener survey referred to should have secured information on both the reception and use if the public service aspects of various classes of stations were to be studied and analyzed.

The questions asked on the post card reveal neither type of information accurately. The basic question is: "Name your favorite radio stations by call letters in order of your preference," and this question is followed by four blank spaces numbered 1 to 4 for convenience in listing the listeners' favorite stations.

Measure of Reception

The word "favorite" is so vague and indefinite as to have little, if any, practical value. It most certainly is not a measure of reception. Moreover, there is a sufficient connotation of *desirability* as against *accessibility* to make the question a most dubious measure of habitual listening. One may have a favorite station, the programs of which one always selects when they are available, but unfortunately reception conditions may make it impossible to hear the station for more than a small fraction of the time, and this unfortunate inability to receive the favorite station may exist during a major portion of the whole time and may co-exist during the same time that other stations are delivering reliable signals which could be received satisfactorily.

This aspect of desirability is further intensified by the phrase "Order of preference." Preference is a very different thing from use. One may prefer a station but reception conditions may be such as to make reception from it impossible and these conditions likewise may co-exist over the vast majority of the time when the listener could receive service of a satisfactory order from other stations.

Experience in research by sampling, we are informed, has shown time and again that defects in the wording of questionnaires are sufficiently serious to destroy the entire value of a survey, since they either mislead the reader as to the information desired or may induce an element of confusion which will cause different people to answer the same question in various ways.

We do not assume to know the perfect manner in which these questions should have been asked, but we do believe and we are in fact sure that the inadequacy of the question used can be clearly

illustrated by presenting a type of question which would have been more desirable and much more fruitful. "List the stations which you can hear most satisfactorily, in the order of the strength and regularity with which you can receive programs broadcast by them," and follow as in the case of the post card survey with blank spaces numbered from 1 to 4.

The suggested question should most certainly be asked separately for day and nighttime reception and careful check should be made of results in various areas to ascertain whether the questions were answered accurately.

If further information is desired to indicate the habitual use of stations, then the following question might be asked, again separately for day and night, "List the stations to which you listen regularly in the order of the amount of time to which you listen to each of them. (Put the station you listen to most first, etc.)" and follow with spaces as before.

Allocation Survey

Comparison of the questions asked on the post cards which were returned and formed the basis for that portion of the allocation survey released on September 1, 1936, which refers to this data with these suggested questions clearly indicate the total inadequacy of the questions asked on the cards which were used. The post cards which were used were therefore not designed to secure any reliable information on station coverage.

The second factor which raises grave question as to the value of the listener survey being considered is the relatively small number of returns secured. The sample of 32,671 returns, when scattered over nearly 3,000 counties—as it should be if it is to cover all counties having a rural population, is indeed a small sample. If the information desired is general enough, it may be an adequate sample if no specific data is wanted. But if detailed information is desired or if detailed breakdowns of the information are needed, then a much larger sample is essentially required. In this instance, as we shall show, detailed breakdowns are required if any sound analysis or interpretative work is to be made possible.

Another important question in securing representative rural sample, and which must be investigated in a case such as this, is the fact that "rural" and "urban" in spite of attempts at definition, are relative terms. It is estimated that nearly one-half of our total population lives within a 20 to 50 mile radius of the 96 cities and metropolitan centers of 100,000 or more population. This one-half includes among its numbers more than 8 per cent of the population of the country which is classified as rural. It is safe to say that this so-called "rural" population is much more urbanized in every way than is the urban population of a small town of 2500 to 3000 situated far away from any other center.

The important thing here is, that if we measure "rural" listening we must make certain that it is neither too much nor too little rural—that it is a real cross section.

These questions have been raised to indicate the problems involved in making an adequate rural survey. Since no information beyond state-breakdowns has been made available as to distribution of sample, and has confined its presentation of material to state data, it is impossible to judge the soundness of the survey or to appraise the value and the exact nature of its results. This not only makes impossible the use of the data in an intelligent manner by the outsider, but robs the summaries and attempted interpretations of any value which they otherwise might possess.

Defect of Survey

This brings us to the third defect of the survey, namely, that the units used in presenting summaries are of such a nature as to preclude intelligent use of the results. For the reasons mentioned previously, state data are of little significance. This is all the more true because of the number of important stations situated sufficiently close to state lines to affect important portions of more than one state. Detailed analysis of county information would make possible the determination of the exact location of a station's principal influence within a state. Where smaller size stations are being considered—regional and local stations—their relatively more restricted coverage areas make such county analysis especially important. Exactly what stations rural listeners in counties adjacent to regional stations listen to is a highly important consideration in determining future policy toward classes of stations. This lack of county analysis is the most serious defect in the presentation of results.

Station Preference

The presentation of station preference, granting that they are at all significant when based on a question such as the one used, also

has been made in a way to make impossible their practical evaluation. There is even grave question as to whether the classification of stations as "clear channel" is correct. On page 2 of the allocation survey it is found that in arriving at the percentages given, 95 stations are listed as "clear channel." This number includes many stations of regional and local power, some of which operate limited time and some of which operate daytime only. As will be pointed out, it is impossible to arrive at the percentages given by states in favor of clear channel stations without including these limited time and daytime stations. Everyone knows that there are not 95 "clear channel" stations operating in this country, and it seems elementary to us that if all the votes cast for daytime and limited time stations operating on frequencies used by some dominant clear channel station are credited to clear channel stations, the result will be highly exaggerated, if not indeed very much bloated. The summaries on pages 2 and 3 of the study do not say whether the percentages set forth are merely the first choice or a summation of all four choices. If percentages are for first choice alone, and we understand they are, they are of particularly doubtful significance. One may assume in this study, that ability to hear the station is the most basic fact to be determined; to borrow a phrase from the report (top of page 4), "the relative effectiveness of stations of the various classifications in rendering rural coverage in different states."

First choice is the least desirable measure which could be used for such a purpose. If it has any meaning, it connotes the most popular station. Popularity is especially dependent upon programs as contrasted to coverage.

First Choice

In addition, first choice is a highly relative matter. If more than one station can be heard with any degree of satisfaction whatsoever, the listener is almost certain to habitually utilize the service of more than one transmitter. The degree to which he utilizes or prefers his first choice station more than his second choice may vary from a hairline distinction to a much more pronounced partiality.

For this reason, first, second, and third choices, at least must be considered. They must be considered first separately and individually, and then probably cumulatively. Only by following this general type of procedure can habitual listening and true measure of service be analyzed to any degree at all. This information must be studied on a county basis to be significant.

This brings us to our final reason for believing that the listener survey portions of the allocation study as released possesses little practical value, namely, that the results which have been drawn from the data and the results possible on the basis of the data as presented, are seemingly so superficial as to be of little, if any, value.

The foregoing statement regarding the type of analysis which should have been made in itself indicates the superficiality of the summary and interpretation which was presented. A few additional examples may suffice to further indicate this point. The editorial matter on page 4 indicates that even in the highly populated eastern states "though there are many broadcasting stations of the regional and local classification operating, a high percentage of the rural listeners preferred service from clear channel stations."

In the first place, we should like to know the location of the rural listeners in question. In the second place, we venture to predict that if urban listeners were taken in a number of these states, this still would be true.

As we have said previously, programs determine listening as much as signal. Notwithstanding the splendid local service rendered by regional and local stations and the importance of that service to listeners, it is the network presentation-sustaining programs and even more especially the big sponsored shows, which have the greatest popular appeal. They will weigh largely in station popularity; so that the network affiliated station enjoys an advantage over the independent at the present time in securing a large habitual audience. An examination of a number of the highly populated eastern states reveals some interesting information. In New York State, of the stations affiliated with the networks of NBC or CBS, five are clear channel, one is high-powered regional station, five are regional stations and one local. The clear channel stations in the state also are located in the most populous areas, viewed from the rural as well as the urban angle. It is only natural that large numbers of listeners should turn to them for network programs. It is probably the program which exerts the major influence.

Network Stations

In New Jersey two stations, WOR and WPG, are the only network affiliated stations in the state. The highly populated areas

of North Jersey range no more than 50 miles from New York City and even include the transmitters of two of the New York clear channel stations. South Jersey, including rural as well as urban population, is immediately adjacent to Philadelphia, where two of the three national network affiliated stations are clear channel. If listeners in these areas want network programs they must turn to clear channel stations. Do they turn to them because they are clear channel stations or because they carry network programs?

In other states the same general situation prevails.

There is evidently more to this pronounced preference of clear channel stations than signal or the stations' own home programs. Except in some remote areas, network service is a deciding factor in all probability. One might ask whether the coverage of the Rhode Island regionals is the answer to the Rhode Island preference for regional stations, or the fact that two out of three are national network affiliated and the third is a member of the Yankee network.

Examination of states in other sections gives rise to the same question. In Illinois 87.4% of the listeners preferred clear channel service and 6.8% regional service, according to the table on page 2. Amazingly, 5.6% preferred local stations. In Illinois, there are six clear channel stations all affiliated with national networks, and one regional, WMBD, Peoria. If an Illinois citizen, farmer or otherwise, wants a network program, he must listen to a clear channel station.

In Iowa, enjoying excellent coverage from at least one clear channel station, only 64.3% preferred clear channel service and 34.1% preferred regional service. Within that state, there is one clear channel national network affiliate and five regionals, only one of which is on a low frequency—WMT on 600 kilocycles.

We do not wish in any way to draw final or all-embracing conclusions from the aforementioned instances. We merely wish to indicate that there is more to a practical, layman's analysis of the situation than can be found in the scant summaries presented. And these are things which the layman can easily understand, and I speak as a layman on research of this character.

Interviews by Inspectors

No record so far released shows the total number of interviews made by field inspectors and which are referred to and taken into account in arriving at the percentages shown in the first portion of the allocation survey released on September 1st. The only way the number could be ascertained would be by making guesses. It is apparent that all of the objections to the post card survey obtain with respect to these interviews, but we cannot and do not propose to guess what the degree of such objections are.

The regional group which I represent most certainly does not take the position that clear channel stations are not operating in such a way as to render a high order of service to the public. On the contrary we realize full well that as the most of them are now operated the clear channel stations of the country are rendering a most meritorious service. Any survey such as the post card survey referred to, however, which attempts to show such a great preponderance of service by the clear channel stations as compared to the regional stations of the country cannot go unchallenged in the light of the facts.

To determine just what the post card survey referred to did show, we made detailed studies of the post cards returned from certain states which we were informed might be regarded as typical. To go into all of these would serve no good purpose, but to give the Commission the benefit of the actual facts from at least one of these typical states is essential.

We went over the individual post cards returned from the State of Nebraska and at the time these post cards were examined a count was made of both the first and second choices or preferences as to station on each. These preferences were kept by counties and by stations preferred by those responding from each county.

Our count of the individual post cards from Nebraska which showed such station preferences totaled 814. Since our study was completed information has been released to the effect that 868 such responses were used in tabulating the post card survey from Nebraska in connection with the allocation survey released September 1, 1936. The cards have been in the Commission offices for many months and it is probable that our study may have missed the 54 cards which represents the difference between those we examined and those considered in the beginning.

Based on a tabulation of the 814 cards which we had occasion to study, it is impossible to credit 65.4% of the first choices or preferences to clear channel stations. Only 46.2% of the 814 choices were for clear channel stations. If every one of the additional 54 cards taken into account in making up the September 1st release

should be credited as having given clear channel stations as their first choice and not one of them counted for a regional, limited time or daytime station, the first choices which would be thus credited to clear channel stations would be *only* 48.33%. (The last percentage based on 868 cards.)

Examination of Post Cards

In view of this it is apparent that the 65.4 percentage of first choice returns credited to clear channel was by no means based on clear channel stations. The difference must have been made up by adding to the first choice returns which actually mentioned clear channel stations, a large number of first choices or preferences for daytime or limited time stations. On the basis of our examination and tabulation of the 814 cards, it is found that a very large portion of this number actually showed a daytime station to be their first choice. These daytime station choices were for two 500-watt, two 1 kw., one 2½ kw. and one 5 kw. daytime stations. It is obvious therefore that the 65.4% credited to clear channels was so credited on the basis of the daytime stations in question being licensed to operate during daytime hours on a channel occupied by some distant, dominant, bona-fide clear channel station.

The impression one gets from the percentages of preferences shown by states for clear channels is that these preferences were for clear channel stations. This positively is not true in the Nebraska case. Not only does one get this impression, but since the release of the figures in question they have been widely publicized to this effect. This is not giving credit to regional stations as should be the case, and produces an exaggerated picture of the relative popularity of clear channel stations against that of regional stations.

Who would ever claim that a daytime station operating with 500 watts, regardless of what frequency it might occupy, is more akin to a clear channel station than to a regional station? This Commission has classified stations into four general groups. The public has become accustomed to referring to them as clear channel, regional, high-power regional and local stations. The public has come to think and in fact the Commission has considered that a 500-watt daytime station, a 1 kw. daytime or a 2½ kw. daytime station are, during the daytime, merely nothing more nor less than counterparts of regional stations. They have done this regardless of frequency for the very good reason that power has been the determining factor in this manner of thinking. We most respectfully submit that stations which operate during daytime hours only with from 500 to 5,000 watts, and especially since two of them here in question operate with only 500 watts, two with only 1 kw., one with 2½ kw. and only one of them with 5 kw. day power, if they are to be included in such tabulations along with either clear channel stations on the one hand or regional stations on the other, should have been included with and credited to regional station popularity. A better way and one which would have made this tedious job wholly unnecessary, would have been to have shown the responses received which showed daytime stations as the favorites in a separate classification from either clear channel or regional stations.

Question of Importance

This question is of grave importance to regional stations. It means much to them economically and the manner and character of service which they shall continue to give depends more upon their economic status than on any other thing. If the percentages shown on pages 2 and 3 of the portions of the allocation survey referring to station popularity were taken as final and without the necessary explanation which has been made, the effect on business done by regional stations would be tremendous and that effect would most assuredly be adverse to them.

It may be said that the percentages represent rural popularity and that they do not indicate the relative popularity of classes of stations among urban listeners, yet the all-important fact remains that it is the easiest thing in the world to forget to use the qualifying word "rural" in connection with them.

We are at the same time fully cognizant of the fact that regional stations for years have been and still are the backbone and main-spring of the broadcasting system enjoyed in this country. And when we consider that nearly half the total population of this country is located within a radius of 50 miles of the 93 cities having a population of 100,000 or more; that these centers are all served by regional stations; when we stop to consider that the majority of regional stations in this country are located in cities of less than 100,000; when we stop to consider that a large number of daytime and limited time stations are likewise located in centers where they can and do serve large rural audiences, we are sure the Commission realizes that this class of station is serving an in-

dispensable need. Add to this the fact that in the State we have gone into in detail—Nebraska—32.7 per cent of all the returns tabulated and taken into consideration in making up the allocation survey referred to, showed regional stations as their preference or first choice, the social importance of regional stations is definitely shown to be of unsurpassed importance. Add to these the further fact that a very large proportion preferred day time stations of regional powers and it at once becomes apparent that any step taken which might adversely affect them would upset the most important sectors of our broadcasting system.

Economic and Social Considerations

To justify themselves socially, 500 kw. stations must show that they will provide listeners with program service which is not available to them at the present time.

The Commission is thoroughly familiar with the affiliations of the various clear channel stations and knows that every one of them, since the acquisition of KNX by the Columbia Broadcasting System, that operates any appreciable amount of time, is affiliated with and carries the programs of the National Broadcasting Company, the Columbia Broadcasting System or the Mutual Broadcasting System. Had we had sufficient time we might have prepared data and tables showing the portion of time devoted by clear channel stations to carrying network programs. Because of the lack of time this was impossible but we realize that the Commission is fully acquainted with the facts. An examination of the Commission's own records will reveal that clear channel stations are devoting as much of their time to broadcasting network programs as are regional stations carrying such network programs. Further examination will disclose that the percentage of time devoted to carrying chain programs by clear channel stations has not decreased on clear channel stations as a group since the Federal Radio Commission established the policy of permitting them to operate with 50 kw. Clear channel stations devoted most of their time to network programs before they were authorized to operate with 50 kw., they have devoted most of their time to the carrying of such programs since and they are still doing this. It has been said that "By their fruits, ye shall know them," and if this test is applied to clear channel stations this Commission can make no other finding than that clear channel stations will continue to devote the greatest portion of their time to broadcasting network programs in the future. It is therefore obvious that the service which the public will receive from tuning and listening to clear channel stations in the future will be as it is today and as it was yesterday—network programs.

In view of these facts this Commission should give consideration to the present coverage by network programs. The networks and the stations, including practically all classes of stations affiliated with these networks, have done this job for the Commission and have done it well. Both the National Broadcasting Company and the Columbia Broadcasting System have conducted thorough and painstaking surveys to determine coverage of their respective networks. The thoroughness with which these surveys were conducted and the results analyzed cannot be compared with the post card survey which we have discussed. The networks have done a much more thorough job.

Results of Survey

The survey and the results of the survey made most recently by the Columbia Broadcasting System are set out at great length and in detail in their publication "Day and Night." In this will be found a description of the thorough manner in which the Columbia Broadcasting System went about making and analyzing the coverage its programs get. Maps for individual outlet stations affiliated with it and a map of the United States showing the composite coverage by the combined stations carrying Columbia programs show definitely what the night time primary listening areas of this total network are and what the national area is.

We have taken this survey and, based on it and facts disclosed in it, we have prepared two tables. The first of these (Table I) shows a breakdown of coverage by states and opposite each state we have shown in the first column the percentage of population of the whole United States which is located in any given state and in the primary night time listening areas of Columbia outlet stations. In the second we have shown for each state the percentage of the total United States population in that state which is outside the primary night time listening areas of Columbia stations, and have then shown the total percentage the population of each state as compared to the population of the whole country. These three columns are all under the main heading "Population". The population figures shown are from the U. S. Census of 1930. In

a like manner we have shown in three columns under the main heading "Radio Families", first, the percentage of radio families of the whole United States in the respective states which are in the primary night time listening areas of Columbia outlet stations; second, we have shown like percentages of radio families for the respective states outside such primary night time listening areas of Columbia stations, and third, have shown the state total percentage of radio families, such percentages being percentages of the whole United States. These figures are based on the Estimates of the Joint Committee on Radio Research as of January 1, 1936, already referred to. Under the main heading "Retail Sales" we have shown the same kind of information on retail sales for the respective states divided between retail sales in counties which are within the primary night time listening areas of Columbia stations and those which are outside such night time primary listening areas, and finally, have shown the percentage of national retail sales for each of the respective states.

Breakdown by States

In addition to the breakdown by specific states for Columbia coverage, we have grouped the states by divisions and have prepared a table (Table II) showing like information for the nine divisions of the United States and totals for the whole country on this same table. The result of this investigation shows that 90.2339% of the total population of the United States is within the primary nighttime listening areas of stations affiliated with and carrying the programs of the Columbia Broadcasting System, and shows that only 9.77661% of the population of the country is not included in some night time primary listening area served by a Columbia station. This breakdown also shows that 94.7992% of the radio families in the United States are included in the night time primary listening area of one or more Columbia stations and only 5.2008% of them are not so included. Based on retail sales from the 1933 Census of Business, it is found that 95.9118% of such retail sales are included in the nighttime primary service areas of Columbia stations, and only 4.0882% of such retail sales are outside the Columbia nighttime primary listening areas. Since making the survey, WJR has changed from NBC to CBS but still serves as many listeners.

Following methods differing in detail as to mechanics but conducted for the same purpose and with like thoroughness to the survey made by the Columbia Broadcasting System, the National Broadcasting Company has determined the population and has published data showing the nighttime primary listening areas of stations affiliated with both the Blue and Red Networks of that Company.

Coverage

Coverage maps for the individual affiliated stations and a composite map showing the combined coverage of stations affiliated with each of the networks of the National Broadcasting Company were prepared and published along with the supporting and explanatory data in the National Broadcasting Company's "Aireas".

In making up tables from the individual maps and the composite map showing combined coverage of the stations carrying programs of the Blue and Red Networks, it was found possible but at the same time a most inconvenient task to eliminate from the coverage that which is credited to WLW. As in the making up of the tables showing coverage by the Columbia Broadcasting System, we have picked this coverage up county by county and state by state with the result that we have prepared a table showing the same information as to coverage in population, radio families and retail sales for both the Red and Blue Networks of the National Broadcasting Company. Table III shows the coverage of the Red Network by states and the information referred to. It does not include any coverage by WLW. The coverage of WLW was carefully eliminated so that no question of 500 kw. station operation would in any way affect the results which are shown on the table. As was done in the case of the Columbia survey, we prepared a table showing population, radio families and retail sales for the nine divisions of the United States and the totals for the whole country. This data is shown in Table IV and refers only to present coverage by stations carrying the Red Network programs of the National Broadcasting Company at night without including, but specifically excluding, coverage by WLW.

Primary Listening

Information made up in the identical manner was prepared to show the population within the primary nighttime listening areas of stations carrying the Blue Network programs of the National Broadcasting Company, the number of radio families and the retail

sales in these nighttime primary listening areas. As was done in connection with the data prepared on coverage by stations carrying the Red Network programs of the National Broadcasting Company, WLW is not included, but is specifically eliminated for the reason stated. This information on coverage by stations carrying Blue Network programs is shown in Table V for the various states and the information for the nine divisions of the United States and the totals for the country are shown in Table VI.

Had we been able to secure information as to the nighttime primary listening area of WLW while it operated with 50 kw. power, we would have included it, but not being able to secure this data it is impossible to give any specific figures in that connection. These figures would most certainly have increased the percentage of population, the percentage of radio families and the percentage of retail sales included within the primary nighttime listening areas of the National Broadcasting Company. WLW was well and favorably known while it operated with 50 kw. Had the figures for that station based on 50 kw. operation been available I am sure that both the National Broadcasting Company and the management of WLW would heartily agree that if they were added to the coverage by the National Broadcasting Company exclusive of WLW, they would at least equal the coverage which the Columbia Broadcasting System has.

Here let us emphasize that the coverage figures for the Columbia Broadcasting System and for both the Red and Blue Networks of the National Broadcasting Company are intended to show and do show coverage by primary listening areas. We have not dealt with nor attempted to show what the secondary nighttime listening areas of these networks are. Both of them claim almost complete coverage of the remaining portion of the country as coming within their respective secondary nighttime listening areas. If any appreciable percentage of the small portion of the population and families having radio receivers who are not included in the primary nighttime listening areas of these three networks receive secondary service from them, it certainly leaves almost no population and few families who have radio receiving sets outside their present coverage.

CBS and NBC

The Columbia Broadcasting System and the National Broadcasting Company have evidenced such faith in and have put such reliance on their respective surveys that they have given them general circulation. They cannot, and I am sure they will not, question the accuracy of the facts as we are presenting them. Not only have they made use of this data, but it is common knowledge that the management of stations affiliated with both the National Broadcasting Company and the Columbia Broadcasting System have made extensive use of the survey of their particular stations. To question the accuracy of the composite survey is to question the accuracy of its individual units, the individual station's coverage. Since it is shown that the data collected on and forming the basis for arriving at the coverage of individual outlet stations was done in the same way for all of the stations affiliated with either of the networks in question, it must be said that all are accurate or none are accurate. We are therefore likewise convinced that no individual station, be it a clear channel or a regional station, the coverage of which is reflected in the surveys mentioned, can question the accuracy of such survey. The individual stations having made use of the individual coverage surveys, and this is common knowledge, adds to the standing of the survey as a whole and to the credit which each of the surveys should be given. The individual stations must, and we are sure they will, agree that the surveys are accurate and reflect the true conditions as to present coverage by the three networks discussed.

The coverage shown for Columbia stations in the composite coverage for all stations affiliated with that network were based on and determined from 700,000 returns. The details of how these returns were secured will not be gone into. The fact that the results are based on 700,000 returns shows that the reliability of the survey is as many times as good as that number compares to the number of post card returns tabulated in connection with the allocation survey of September 1st.

The coverage of the stations affiliated with the National Broadcasting Company and the composite coverage shown for its Red and Blue Networks are based on a combination of field intensity and the analysis of one and one-half million pieces of mail. This ought to give a fair cross-section and representative picture of listening habits and accessibility of signals. We believe it does this.

Computing Areas

Engineers employed by the National Association of Regional Broadcast Stations have spent many days computing the areas and preparing maps to show coverage of the country by clear channel stations. The technique and results of these studies have already been fully covered by the testimony of Mr. Pickard. He has not, however, covered a most important phase of this coverage, and that is the population breakdown by counties and by states so that the number or percentage of families having radio receiving sets could be determined. We have made these investigations and have the computations. This data shows that 90.2% of the families having radio receivers would receive signals from clear channel stations if operated with 50 kw. with the minimum intensity of .414 MV/M. Without counting or in any way considering the population served by any other class or classes of stations, it is therefore found that 90.2% of the entire radio population of the United States is within the areas in which the several clear channel stations would deliver a minimum signal of such order as to give the character of rural service in signal intensity referred to in the allocation survey. As has already been pointed out and as is common knowledge, the reason which has always been given the greatest weight in supporting clear channels has been their service to rural listeners.

We submit that it is fundamentally unsound to permit the operation of clear channel stations with 500 kw. power and thus to give them only a ten percent increase in population which they could serve, if in granting this authority it might in any way tend to disturb the status of other important classes of stations.

Reliable Survey

Another, and what we consider to be the most important as well as the most reliable survey of all with respect to the population served by clear channel stations has been made, using as a basis therefor the testimony of Mr. Pickard and the exhibits which he has prepared showing the coverage of 35 clear channel stations under present allowable conditions and showing what the coverage of these stations would be if they were authorized to operate with 500 kw. As was carefully pointed out by Mr. Pickard, the contours within which service by clear channel stations is now received is limited to the .414 MV/M line. The contours within which a .414 MV/M signal would be delivered if these stations should increase their operating powers to 500 kw. is likewise shown on the exhibits introduced by him.

Using these areas it is found that 99.78% of the radio homes of the United States could receive at least one and 98.41% two clear channel network services based on a minimum signal intensity of .414 MV/M and counting present clear channel stations alone, if they are operated with 50 kw. power.

The areas within which two, three or four clear channel services would be received with a minimum signal of .414 MV/M have been carefully studied and the counties which would receive these various numbers of clear channel services have been determined, together with the total population of each based on the 1930 Census figures and the number of radio homes in each based on the estimate of the Joint Committee on Radio Research which has already been referred to. So that the Commission may see the population by states which is within the areas thus receiving two, three or four clear channel services with a minimum signal of .414 MV/M, we have prepared Table VII. This table shows, alphabetically, each of the states of the Union, its 1930 population and the number of radio homes estimated to be therein as of January 1, 1936. The table also shows both the population and estimated number of radio families which could, based on 50 kw. power, receive two, three or four clear channel services of the order described. As already pointed out, it shows that nearly all of the radio homes and population of the United States would receive a minimum of two clear channel services. It also shows the portion of the population and radio homes within each state which would receive three or four such clear channel services. The fourth service is, of course, limited to services from the two clear channel stations affiliated with the Mutual Broadcasting System and not affiliated with any other network, viz., WGN and WOR.

Radio Homes

The table shows the population and number of radio homes for each of the states which would receive service from clear channel stations if these stations should all be authorized to operate with 500 kw.

The final tabulation or recapitulation set out in the table shows the composite figures for the United States as a whole. Under present policy governing operating conditions in addition to 99.81% of the population and 99.78% of the radio homes of the country which would receive a minimum of one clear channel service, it also shows that 98.41% of the population and 98.35% of the radio homes of the country would receive two such services, 97.25% of the population and 90% of the radio homes of the country would receive three of these services. It emphasizes the small percentage of additional radio homes which would be served if not a few but if all of the 35 clear channel stations should be authorized to operate with 500 kw., and although this is emphasized it nevertheless is the true picture based on recognized engineering standards and data which were described and testified to by Mr. Pickard.

This Association is convinced and respectfully submits that the installation and operation of equipment for stations with an operating power of 500 kw. is economically unsound. After intensive study of the questions involved the engineers employed by the Association have advised that the cost of mechanical or technical operation of a 500 kw. station would be slightly more than two and a half times and less but closely approaching three times the technical or mechanical cost of operating a 50 kw. station. To determine a close approximation of the mechanical or technical operating cost of a 500 kw. station is therefore relatively easy. Such a determination has been made relatively easy because a group of well known radio engineers have determined and reported what the *minimum* cost of operating a 50 kw. station would be. These gentlemen constituted the Advisory Committee on Engineering Developments of the National Advisory Council on Radio in Education. The Committee making the report was headed by Dr. Alfred N. Goldsmith, Vice President and General Engineer of the Radio Corporation of America, and Messrs. C. W. Horn, Chief Engineer of the National Broadcasting Company; E. K. Cohan, Chief Engineer of the Columbia Broadcasting System; Lloyd Espenschied of the American Telephone and Telegraph Company; John V. L. Hogan, Consulting Engineer; C. M. Jansky, Consulting Radio Engineer; O. H. Caldwell, former member of the Federal Radio Commission, and others. The Committee referred to, without dissent, reported that the cost of maintaining and operating the plant of a 50 kw. station including depreciation and obsolescence on transmitter and other equipment, buildings, furnishings, taxes and insurance on land and buildings, salaries, power, maintenance of equipment, but excluding wire lines and all other costs incident to studios and offices, would be \$194,750.00. These figures are based on the operation of such a station only twelve hours per day and, as already stated, the Committee reports that they are to be "regarded entirely in the light of approximations of the minimum costs involved." If consideration is given to the fact that full time clear channel stations operate sixteen to eighteen hours per day these *minimum* costs would have to be increased to cover the additional power consumed in the operation of a 50 kw. station. The minimum cost of current to operate a 50 kw. station twelve hours per day is given as \$30,000. If sixteen hours daily operation is considered this figure will be increased \$10,000 and become a total operating cost of \$40,000. Our engineers advise that under such operation the costs of tube replacements would be increased. The Committee composed of the eminent engineers mentioned give the annual cost of tubes, etc., necessary in the operation of a 50 kw. station only twelve hours per day as \$50,000. Without increasing these costs in direct ratio to the increase from the twelve hours per day operation on which these figures are based to the sixteen hours per day operation, but increasing this figure by only one-fifth it is found that an additional \$10,000 must be added for this item alone. If these two \$10,000 items, one covering additional power and the other tube replacements, etc., are added to the \$194,750 taken from the Committee's report, it is found that the annual technical cost of operating an efficient 50 kw. clear channel station will be a minimum of \$214,750.00.

Difference in Cost

Our engineers after investigating the difference in cost of operating a 500 kw. station as compared to the cost of operating a 50 kw. station, advise that the cost of operating a 500 kw. station will be more than two and one-half times and slightly less than three times as much as the cost of operating a 50 kw. station. If we take the minimum difference and multiply the cost of operating a 50 kw., which is \$214,750 by two and one-half it is found that the minimum cost of operating a full time 500 kw. station will be \$536,875, or \$322,125 more than the minimum annual cost of operating an efficient 50 kw. station.

Late last Saturday afternoon, after the preparation of this statement had been completed, I received a new edition of the report. The figures have been changed and the cost of operating a 50 kw. or a 500 kw. station have been, according to the same committee, somewhat reduced. The amazing disclosure that comes from the new report of the committee is that in 1936 it cost only \$10,000 to cover all the power needed to operate a 50 kw. station 16 hours per day whereas the report of the same committee showed that the power bill in 1932 to operate a 50 kw. station would be \$30,000. This means that power rates have been reduced 75% and that they are now only 25% as much as they were in 1932. Does anyone believe that such reductions have been made in power rates? If you do not believe that power rates have been reduced 75% since 1932, you cannot take the new report as being accurate. The new report on page 1 is dated July, 1936, and on page vi it is found that the foreword is dated August 1, 1936. Is it a mere coincidence that this report should be brought out *after* the Commission called this hearing, and *after* the question of 500 kw. operation was being considered? This new report does more than support certain other figures given to you on the necessary *new* investment if stations are to be operated with 500 kw. power. The figure is given by us at half a million dollars and the new report referred to by the committee of eminent engineers gives the figure of \$582,000 as the cost of those items incidental to the transmitting plant only without accounting for one penny to cover studios or other necessary investments. It has been necessary to add this paragraph to our original statement as prepared but in deference to the Commission and its right to all facts we could find, we have added it here.

Costs

The only factor open to question is the information which has been given by our engineers to the effect that it will cost more than two and one-half times and slightly less than three times as much for technical and mechanical operation of a 500 kw. station as it would cost to operate a 50 kw. station. We do not believe that this ratio is open to question. It was arrived at after the engineers had made painstaking investigations to determine what the difference in cost of operating the two classes of stations would be.

No additional expense for improved programs or other expenses incidental to the operation of a 500 kw. station with the sole exception of the items mentioned are included in the figures given.

In view of these facts it becomes necessary to look to the present operating revenues of stations so that it may be ascertained whether there is sufficient clear channel business to support 500 kw. stations; whether the rates charged by them must be increased; whether any additional advertising will be necessary to cover the increased cost of operation, or whether the increase will come from business now held and carried by regional stations.

To ascertain what clear channel stations of the country are doing in the way of business, during the month of August we went over the sworn statements contained in the renewal applications of the clear channel stations of the country, with the exception of clear channel stations owned and operated by the National Broadcasting Company and the Columbia Broadcasting System, and took from the last six renewal applications of each station then on file the sworn statements made by them as to their average monthly revenues and arrived at averages on the basis of these figures. When the averages were arrived at it was found that the average monthly revenues reported in the last renewal applications filed by the clear channel stations were higher than the average and because those figures are higher and because they are more recent, it is believed that they are, having been sworn to by the stations, representative of the average monthly revenues received by clear channel stations.

On the basis of the sworn statements as to monthly revenues just referred to, it is found that one clear channel station operates in a city having a population of less than 50,000 and that its monthly revenue reported was \$3,055. Five clear channel stations located in cities having populations between 50,000 and 99,000 reported total gross average monthly revenues of \$94,000.23, or an average monthly gross revenue per clear channel station in such cities of \$18,800.05. There are six clear channel stations located in cities having a population of 100,000 and less than 200,000 and these six clear channel stations reported total average gross monthly revenues of \$132,763.65, or an average of \$22,127.17 per clear channel station in cities of this size. Twelve clear channel stations operating in cities of 200,000 to 499,000 population showed total average gross revenues per month of \$357,259.21, or an average gross monthly revenue of \$29,754.93 per station. In cities having

a population of 500,000 and over, thirteen stations reported a total average gross monthly revenue of \$800,678.68, or an average gross monthly revenue per clear channel station in the largest cities in the United States of \$61,590.67.

Monthly Revenue

The average gross monthly revenue of all the stations mentioned in various size cities as reported under oath by the various stations is found to be \$37,506.93.

The same stations classified in the same way by population of cities with one exception (a station operating in a city having a population of more than 100,000 and less than 199,000) showed the following: The station which operates in a city having a population of less than 50,000 reported an average expenditure for talent for the last six renewal application periods up to the time the investigation was made and the data collected in August of \$762.50. The five stations located in cities of 50,000 to 99,000 show an average report for the same periods of monthly talent expenses averaging \$2,379.21 per station. The six stations located in cities of 100,000 to 199,000 showed average monthly talent expenditures for the same periods of \$4,804.59 and stations in cities having a population of 200,000 to 499,000 showed for the same periods average monthly expenditures for talent of \$4,221.14 per clear channel station. For the same periods the thirteen stations located in cities of 500,000 and over reported average monthly expenditures for talent of \$13,947.95. The average for all of the clear channel stations in cities of various sizes showed that their average monthly expenditures for talent during the periods mentioned was \$7,307.48.

(The station not included in accounting for talent expenditures located in a city having a population between 100,000 and 199,000 showed average monthly expenditures for talent of \$95,000. This is obviously so far out of line that it was necessary to eliminate it and we believe we were justified in eliminating it on the theory that the statement was a typographical error.)

It will probably be said that these figures include some time-sharing stations who do not operate full time on a clear channel. They do include such part-time clear channel stations, but regardless of how much time a station operates it must have a transmitter to operate at all. It is therefore necessary that all of them be included or the resulting picture would be wholly incorrect. Moreover, if average figures on expenditures for talent include part-time stations this will result in a lower final figure on the cost of operating a clear channel station. This is to the benefit of the clear channel stations and is ultra-conservative on our part. To be conservative and fair to the clear channel stations in arriving at whether or not the operation of such stations would be economically sound, we have, as clearly indicated, taken the average monthly expenditures for talent over the six last renewal periods and in doing this the cost of operation is less than if we had taken the most recent average monthly expenditures for the same purpose. Again we have leaned backwards in favor of the clear channel stations.

Chain Programs

We have already indicated that the major portion of the time used by clear channel stations is consumed in broadcasting chain programs. This the Commission can find easily from its own records. If stations should be permitted to go to 500 kw., are they to continue merely as outlets for network programs in the future as they have in the past, or will the Commission expect and demand that they do something original to merit their place on such a high pedestal in the broadcast spectrum? If they render any different service or any service that is unique, their talent expenditures will soar far above what they are or what they have ever been in cities where sufficient talent is available to produce high quality programs. It is common knowledge that the number of cities which afford sufficient talent to perform such a job is very small. The cost of talent in cities other than talent centers will be even higher, or else those stations will continue in the future as in the past as outlets from which network programs are broadcast. We have already shown that this country is now being served by network programs and that there is no justification for increasing the power of clear channel stations to 500 kw. to afford coverage by Columbia and NBC programs. It follows, therefore, that there is no excuse for a 500 kw. station unless that station will do something original and render a unique service not now available to the listening public.

An examination of the figures already given on average monthly revenues most recently reported, and these averages are higher

than if the last six renewal periods had been taken into account, show that the average monthly gross revenue of clear channel stations in cities of 500,000 and over is \$61,590.67, or an average annual gross revenue of \$739,188.01. If the cost of operating a 500 kw. station, which we have found to be \$536,875.00, is subtracted from this average gross annual revenue, it shows that stations in such cities now have an average annual gross profit of only \$202,313.01 more than the annual cost of mechanical operation. If from this the average annual talent expenditure referred to is subtracted, it leaves only \$34,575.53 to cover any return on investment in plant and studios, to cover all sales expense, rental of studios and all other expenses incident to the operation of the business and offices except the specific items mentioned. It has been stated time and time again that a 500 kw. station would entail a minimum new investment of half a million dollars. In a business such as broadcasting, the remaining \$34,575.53 represents less and certainly not more than a reasonable return on the actual new investment in the station. It is found, therefore, that if good business practices are followed, 500 kw. stations are economically unsound even in cities of 500,000 and more. If good business practices are not followed the station will not continue in operation.

Costs of Operation

If the cost of operating a 500 kw. station is compared with the hope for profit if operated in a city with a population of less than 500,000, based on these averages taken from sworn statements as to revenues and talent costs, it is found that no such station can operate except at an extremely great loss. Figuring the average monthly revenues, average monthly expenditures for talent, the cost of mechanical or technical operation of a 500 kw. station for these cities and taking into account the same consideration, exclusive of any return on investment, it is found that the average 500 kw. station if operated in such cities would be so operated at an average annual loss of \$230,269.44. As figures are developed for cities of less than 200,000 population the annual out-of-pocket loss from the operation of such 500 kw. station increases in substantial amounts.

What will be the result of clear channel stations operating after this fashion?

It will mean the financial ruin of such stations or else it will mean that these stations must increase the amount of business done by them to offset these losses. This brings up a practical question. Will this necessary amount of additional business done by them come from new business, from increased advertising budgets, or will it come from regional stations, and if from regional stations, what effect will the depletion of their revenues have on them?

We have been unable, after diligent search, to find where the vast amount of new business will come from. This question is of such momentous importance that the Commission should never authorize the operation of 500 kw. clear channel stations until it has been satisfactorily answered and to date no such satisfactory answer has been made, nor is such satisfactory answer being attempted. The facts are that until this question is definitely and conclusively answered, this Commission cannot assume to say that such new business will offset these extraordinary out-of-pocket losses and it must necessarily conclude that if such clear channel stations secure enough business to offset these heavy losses, it must come from increased rates, greater participation in advertising budgets and from regional stations. No facts have been pointed out and none have been found by us indicating that advertisers are going to increase their budgets by anything like the percentage necessary to leave their existing business on regional stations and add a sufficient sum to take care of the losses incident to the operation of 500 kw. stations and pay a reasonable return on the investment of the owners of these stations.

Must Make Decision

In the final analysis the question of what to do about 500 kw. stations is to make a decision that such stations will not be permitted, or else to look for a fight to the death and finally for the survival of the fittest as between regional and clear channel stations. Such a fight will not help either. Moreover, if the 500 kw. stations are authorized and they increase their rates to such an extent that their present business at the new rates will make it possible for them to operate without loss, and if the advertising budgets from which these revenues come are not increased, this means that enough business will be taken from the regional stations of the country to put them all in the red. This is especially true of national spot advertising. If 500 kw. stations are authorized, these stations are going to do their dead level best to sell the

national spot advertiser on the theory that the coverage which he will get from using these 500 kw. stations is so great that they can afford to pay the increased cost and that they do not need regional stations now used by such national spot advertisers to reach the American public. If 500 kw. stations continue in the future as they have in the past to carry chain or network programs, it follows as a matter of course that the rates for carrying these by 500 kw. stations must be severely increased, and if the advertisers using chain programs having fixed budgets determine, as many if not the majority of them will, to use 500 kw. stations as outlets to broadcast their programs, these increases in rates by the clear channel stations will absorb and eat up the entire budgets of such advertisers, leaving nothing for the regional stations.

This is further supported by the fact that the management of 500 kw. stations will be going to the advertiser and to the agency to sell them on the idea that their coverage is so great that regional stations within their service areas will not be necessary to secure complete coverage. The exhibits which have been prepared by the engineers for the National Association of Regional Stations show this possibility clearly. Take Chicago, Illinois, as an example, and within the areas of the stations in Chicago and if the power of the clear channel stations is increased to 500 kw. it will be found that the signal of these 500 kw. Chicago stations will be just as strong, if not indeed stronger, in cities now served by regional stations than these regional stations deliver in those cities themselves. Milwaukee, Wisconsin, is a good example of this. In this city one regional station serves as the outlet for NBC programs and another regional serves as the outlet for CBS programs. It will be relatively easy to make field intensity measurements of the stations in Chicago operating with 50 kw. and compare them with the intensities delivered in and about the Milwaukee area by the Milwaukee stations, and if this is done it will show that these Chicago stations have invaded the Milwaukee area and the result will be that national spot advertisers and chain advertisers will be shown that the 500 kw. station in Chicago is all he needs and that the use of a Milwaukee station is unnecessary.

Typical Examples

These are but typical examples. Philadelphia, Bridgeport and others could be pointed out. One case of a regional station already proves this so far as chain programs are concerned. There is a high class regional station, the area of which is covered by a 500 kw. station. The regional station was affiliated with the National Broadcasting Company and because the chain advertisers would not use this regional station sufficiently, although it is a very high class station, the regional station no longer serves as the NBC outlet but has affiliated itself with the Columbia Broadcasting System. The facts with respect to this case have become common knowledge and if this has happened in this case, who will say that it will not happen to all regionals whose areas are covered by 500 kw. stations located in distant cities?

Reverting to the Milwaukee stations, it is essential that the high status of the stations be maintained and that they continue to receive the patronage of the chain and the national spot advertiser. If they should lose these or any appreciable portion of them it would be extremely costly to the regional station to build comparable programs to take the place of those which they lose and they would therefore not only lose the revenues received for carrying the program, but they would lose the additional amount necessary to produce comparable programs to take the place of those which they lost. If large amounts are not spent to produce high class programs to take the place of programs lost by the regional stations, it is elementary and merely common sense which leads us to know that the listening audience of that station would be severely reduced. Its value in carrying local advertising programs would be materially lessened. Its value to the community in furthering civic projects, civic movements and in publicizing and supporting the educational, religious, charitable and general community services, institutions and organizations would be lessened even more.

Spot Business

If half the national spot business and half the chain business now carried by regional stations should move over to 500 kw. stations, and this percentage of movement and more would probably take place in short order, it is seriously doubted that it would offset the losses incident to the operation of 500 kw. stations. What is more important, our investigations disclose that if anything approaching this percentage of chain and spot advertising should move from regional stations to 500 kw. stations, it would destroy the economic status of regional stations and cause them to operate at a loss if

their continued operation could be carried on at all in many places.

This question of opposition to 500 kw. stations is not founded on some flimsy pretext. The facts indicate that the stake of the regional stations in this question is great and that it may mean life or death economically to them, and death to them economically means the destruction of their service in a social way to the important communities in which these stations are located.

There are other questions which should be considered by the Commission before it authorizes the operation of 500 kw. stations. It should be remembered that broadcasting is, relatively speaking, a new industry and that no one can tell what tomorrow may bring in the technical advancement and development of the art of radio broadcasting. If the Commission should authorize the operation of 500 kw. stations and they are constructed, the investment in each of them and in the group will have the practical effect of freezing development along current lines and will act as a positive and important impediment to future progress along such technical lines. Such investments will be so great that even though great and important advances may be made and may come from the laboratories ready for practical use, it will be impossible to use them. With knowledge on the subject of radio increasing by leaps and bounds, it seems to us that any step by the Commission which might freeze future broadcasting to present developments and preclude the inclusion of the advances which may come later would be dangerous.

There is another question, and it is in important consideration. Everyone knows that radio broadcasting in its influence over the land has come to rival and many claim surpass in power the influence of the press. We do not believe that this powerful and probably most powerful medium for swaying public opinion and directing public thought should be concentrated in the hands of so small a number as would be the case if the operation of 500 kw. stations is permitted. To state this proposition brings up at once numerous facts to support it which are self-evident.

Technical Evidence

As part of the technical evidence introduced by Mr. Pickard, it is clearly shown that if 500 kw. stations are licensed they will set up interference in foreign countries. The information and the exhibit showing this international angle and complication is based on interference to foreign stations 20 percent of the time, or twice the amount of time the Commission has heretofore adhered to as the time interference could be received without being objectionable and intolerable. It is therefore safe and ultra-conservative to say that if 500 kw. stations are licensed they will interfere with stations in foreign countries over twice as much time as the Commission has heretofore permitted to exist in the way of interference as a standard for stations in this country. If this testimony and the exhibit illustrating the interference which 500 kw. stations in the United States would do by way of interfering with foreign stations had been prepared on the basis of interference only 10 percent of the time instead of the ultra-conservative 20 percent, the resulting degree of interference would have been much greater and more severe than that shown by Mr. Pickard's testimony or the exhibit illustrating this point.

The testimony of Mr. Pickard and the exhibit referred to show that interference to foreign stations operating on frequencies occupied by 500 kw. stations if permitted to operate in the United States would be objectionable in Europe and in both North and South America. It may be argued that the time difference between European stations and American stations may compensate somewhat for this. The fact remains, however, that European stations like American stations have the right under international agreements, to which this country is a party, and as a matter of common sense and right, to operate twenty-four hours per day. If European stations should do this the time differential must be entirely eliminated as an excuse for operating 500 kw. stations in America and delivering an interfering signal in European countries.

The Central and South American nations are in the same time zones with the United States. No time differential can be injected here, and the testimony of Mr. Pickard based on the 20 percent time-interference and based on the standards which this Commission has followed in establishing the standard of 20 to 1 of the desired over the undesired signal for stations on the same channel to give satisfactory service, his testimony and the exhibit showing the contours of interference, show conclusively that during 20 percent of the time American stations operating with 500 kw. would interfere with stations on the same channel at night operating in practically every Central and South American country. If these contours of interference had been based on field intensities which would be delivered in these distant foreign countries only

10 percent of the time, they would have shown and his testimony would likewise have proven that interference to foreign stations would be still worse and more severe.

Aware of Facts

This Commission is not unmindful of the delicacies involved. It is fully aware of the facts and the precarious condition into which American broadcasting in general could be thrown by foreign stations if we do unto them as we have sought to prevent them doing unto us. The United States cannot have its cake and eat it. The establishment and operation of 500 kw. stations in this country, knowing the severity of the interference they would set up in foreign countries, would be tantamount to making an attempt to do just this. This question of international interference is loaded to the guards with dynamite. If this Commission would license 500 kw. stations and authorize their operation with that power, it might well be, and most likely would be, the force which would set off this charge and result in such a conflagration as would be embarrassing and adverse in effect to the whole American system of broadcasting. The National Association of Regional Broadcast Stations sincerely entreats this Commission not to set off this explosion in this manner.

If any 500 kw. stations are established, and this Association opposes the establishment of any of them, and if the facts which we have given are considered insufficient to prevent their operation, then the facilities must be granted upon the following bases:

Bases

1. The stations must be located where they will actually render unique service which cannot be duplicated by any other means—if such areas exist.

2. Consideration must be given to all applicants possessing the requisite capital and general qualifications to operate a 500 kw. station. Authorizing the operation of such stations by the present licensees of clear channel stations only without making inquiry into their past operations and like inquiry of many regional licensees who have done a much better job than many clear channel stations have, would be to license these 500 kw. stations without regard to the ability of the licensee to carry on in the highest and most commendable fashion. We do not need to remind this Commission that numerous regional stations are today rendering just as good service as are the clear channel stations, nor do we need to remind this Commission that many regional station licensees are doing a superior job to many licensees of clear channel stations. Many regional station licensees would welcome a comparison of their performances and service rendered to the performance and service rendered by many of the clear channel stations. We believe that such a comparison should be made and that if any 500 kw. stations are established, the fact that someone now operates a clear channel station should not give him any preference over other station licensees, and this is especially true if the other licensees can show that they have heretofore performed a higher degree of service than some of the clear channel stations. This is also true because many regional station licensees are better able to make the necessary investment to operate an efficient 500 kw. station than some clear channel station licensees, and the fact that the investment in such a station must be made anew by whoever constructs it should place all licensees on an equal footing.

The National Association of Regional Broadcast Stations reiterates, however, its unqualified opposition, for the reasons already given, to the regular licensing of any 500 kw. stations.

Duplication of Stations on Clear Channels

We have proposed that the Commission's rules be amended to permit and to license the operation of more than one station, unlimited time, on the so-called clear channels.

The fundamental facts and conditions surrounding this question are stated in connection with other classes of stations already discussed. The technical or engineering evidence of Mr. Pickard not only explains the mechanics and engineering facts to be considered but shows definitely what the effect of such operation would be. His testimony shows that interference to other stations would not result and to prove this has prepared exhibits and produced them here showing concrete cases. His testimony and exhibits are so clear-cut and conclusive that there can be little, in fact no doubt that such stations may be operated without interference. This evidence shows that large areas and large populations would receive service in addition to those now receiving service from a given frequency on which only one full-time station operates. It proves

that stations now operating alone on such frequencies, regardless of power, are not serving and cannot serve the areas which would be added and that they cannot and do not serve the thousands upon thousands of listeners who could receive additional service if these stations are authorized to operate in addition to those now operating full time on the clear channels. The only conclusion which can be reached as to the best use to be made of these frequencies is that such duplication should be permitted and if not permitted the waste growing out of the partial use of such frequencies will be extremely great.

Fundamental Factor

We have already stated as a fundamental factor that social and economic needs and demands should control the proper solution of these problems. Without going further into cold statistics, suffice it to say that, as this Commission knows full well, there are many regional stations in this country operating on regional frequencies, the coverage and service of which could be materially improved and expanded if some of them should be authorized to duplicate the use of clear channels. The engineering testimony shows that the interference now received by regional stations is such as to limit them, on the average, to slightly less than 2 MV/M at night. This condition has been brought about by crowding regionals in too large numbers too close together geographically. If some of these regional stations should be permitted to move off regional channels and onto clear channels, a large percentage of this interference would be obviated, great improvement to the listening public would result and the stations would be generally better able to serve their audiences and be of much greater social value to them. There is nothing so sacred about a clear channel as to put it beyond being so used that it will render service based on the greatest good to the largest number. It is clear that duplication of stations on these channels will not interfere with any worthwhile service now being rendered; that such use of channels can be made to improve the regional service to a very great degree and that thousands upon thousands of listeners will be provided a much greater variety of programs and the number which would be afforded such greater latitude in program selection is much greater than the number which would be thus accommodated by being added to the present audiences through increasing the power of clear channel stations to 500 kw.

In asking that duplicate operation of stations on clear channels be permitted, stations of such powers as have been operated successfully for many years are suggested. No suggestion is made for any change in the rules except for stations on these frequencies to operate with 5 to 50 kw., depending on the comparative need for such stations in given communities, separations between stations and ability of the respective communities to make the operation of such stations commercially successful or economically sound.

Effects of Operation

The effects from operation of these stations as to social and economic facts to be considered can be definitely determined, not on one or two isolated examples but from a great mass of data and facts based on the long and successful operation of a large number of stations.

The facts we have presented indicate a great upheaval and upset in the economics affecting regional stations if 500 kw. operation should be permitted. No such disturbance would result from moving some existing regional stations to duplicate operation on clear channels. As we have already pointed out, such duplication would make possible great improvements and there would be no such exodus of business from regional stations as would, we are convinced, take place if the Commission should authorize 500 kw. stations to be constructed and operated.

Another advantage which would be found would be the fact that the service of these stations would be over the proper areas and within the sphere of influence of each where it should be. This would tend to ally them more closely with the general social and economic needs of these areas and the degree of their usefulness would be enhanced in direct proportion to this union. The natural areas which regional stations have sought to serve have been the trade territories centering in the cities where they are located. The moving of some regional stations to clear channels would assist in rendering and improving this service. It has already been pointed out that the problems of those within these trade territories are much more common than their problems are to some distant city or area.

We submit that the operation of these stations on clear channels

should be provided for in view of the facts that their operation would not limit or interfere with any worthwhile service now being rendered; would make for a greater use of facilities and less waste in their use; would tend to relieve interference to regional stations and generally expand and improve their service, and generally improve radio service by providing a greater number and greater variety of programs to a much larger population than could be done in any other way. The proposal is sound socially and economically and these are of primary importance. It is, of secondary importance, technically feasible.

Conclusion

The National Association of Regional Broadcast Stations, on the bases of the social and economic facts, which are of primary importance, and the technical facts as well, all of which we believe sincerely to have supported our proposals, once again most respectfully urges the promulgation of rules or changes in rules so as to permit the operation of regional stations with 5 kw. night power; permit duplication and operation of more than one station on the clear channels, and retain the present rules fixing 50 kw. as the maximum power with which any station will be regularly licensed to operate.

Cross Examination

Under cross examination Mr. Spearman admitted that he is neither a radio engineer nor an economist. He added that the only qualification necessary to a complete understanding of his statement was a knowledge of elementary arithmetic as taught in the grammar school. In this connection and in a facetious vein he said that he thought the engineers had been running the radio game long enough and that now lawyers and economists should have their chance.

Mr. Spearman said in connection with a direct question on the subject that local stations are undoubtedly a very important factor in radio but his group has deliberately stayed away from the subject of local stations in its presentation.

Network affiliations of the regional stations which were contained in his direct testimony Mr. Spearman stated were taken from the Commission's own records.

Regionals Serve Cities

In connection with a further question Mr. Spearman said that regionals can become associated with any network that they want

to legally but not economically. He contended that many regional stations serve cities of 50,000 inhabitants which have no stations of their own. The regionals he stated want higher power to overcome city noises.

Every man, woman and child would be able to get reception clearly from 96 stations with 96 separate programs Mr. Spearman said if he had his way but this is clearly a practical impossibility.

The regional group he stated is not asking for any horizontal increase of power to 5 kilowatts. He asked that radio be not put into a straight jacket and then on interrogation from Mr. Craven said "except clear channels". Duplications on clear channels should be used he asserted to improve the regional set-up. Some part time stations he testified are not making good financially but they might make good if they were granted full time and this might be done through duplication of clear channel stations.

If regional stations went to 5 kilowatts Mr. Spearman stated it would have no marked effect on local stations; at least it would not have as much effect on local stations as the clear channel stations would have by increasing their power to 500 kilowatts on regional stations. Up to this time he said no local stations have ever complained when a regional station has increased its daytime power from 1 to 5 kilowatts.

Allocation Survey

Mr. Spearman said that in his opinion the Commission's allocation survey developed nothing on which the Commission could base an allocation plan and he made some criticism of the post card survey.

The Commission, Mr. Spearman said, should not set up standards of service, because on some channels there is much more interference than there is on others. Mr. Spearman qualified himself as a real radio fan.

He said that the association which he represents is against granting any 500 kilowatt stations and when asked specifically about WLW he called attention to the fact that this has only an experimental license and that his association has taken no specific position regarding that station. He expressed his opinion that if regional stations went to 5 kilowatts that these stations would be able to increase their rate which would undoubtedly take care of any additional expense incurred. Mr. Spearman stated that in his opinion there are several clear channel stations in the country who could not make the grade from a financial standpoint if they had to go to 500 kilowatts.