

## Clear Channel Group Completes Testimony at Allocation Hearing

Joseph O. Maland of Station WHO, Des Moines, Iowa, at today's allocation hearing before the Federal Communications Commission took up the social and economic questions on behalf of the Clear Channel Group. With his testimony that group completed its part in the hearing.

Others who addressed the Commission today included Louis G. Caldwell, counsel for the Clear Channel Group; Judge John C. Kendall, Portland, Oregon, on behalf of certain licensees on shared clear channels; Harold A. LaFount, formerly a member of the Radio Commission; John Shepard, 3rd, chairman of the Executive Committee of the National Association of Regional Broadcast Stations; and Dr. G. W. Pickard who discussed technical questions for the Regional Group.

During the course of today's hearing Judge Sykes acting as chairman announced that owing to the fact that the Broadcast Division of the Commission wished to hold its executive meeting on Friday, that hearings on the allocation question would be adjourned at noon on Friday until 10:00 o'clock Monday morning.

### LOUIS G. CALDWELL

Mr. Caldwell returned to the stand today on behalf of the Clear Channel Group to put some figures into the record relative to the expenses of clear channel stations.

A broadcaster now operating a 50 kilowatt station would have to expend about \$310,000 to change that station to 500 kilowatts, Mr. Caldwell told the Commission. He compared monthly operating expenses of a 50 kilowatt and 500 kilowatt station by stating that the energy for a 50 kilowatt station would cost about \$1,600 a month, increasing to \$6,500 for a 500 kilowatt station.

Mr. Caldwell said further that tubes for the lower power station would cost about \$900 per month and for the higher power station about \$4,000. Personnel for the low power would be \$800 per month, increasing to \$1,000 for the higher power. He said that monthly miscellaneous expenses for the low power station would be about \$200 with about \$440 for the higher power.

Total expense per month for the 50 kilowatt station he estimated would be \$3,500 and \$12,000 for the 500 kilowatt station. There would be a depreciation charge of \$2,000 per month for the 50 kw. station and \$4,630 for the 500 kw. station. The totals for the month therefore, he said, would be \$5,500 for the 50 kw. station and \$16,630 for the 500 kw. station. He gave no estimates for any increased appropriation for programs.

### JOSEPH O. MALAND

Mr. Maland in a detailed discussion for the Clear Channel Group said that his group is opposed to the abolishment or reduction in the number of clear channel stations. That group he said, however, supports a minimum of 50 kilowatts for clear channels and urges that the present maximum limitation of 50 kilowatts be removed.

"The real danger in the economics of broadcasting," said Mr. Maland, "is that the interest of the advertiser in reaching large masses of listeners, and the profit that is to be made in accommodating him, will result in laying down too many tracts of good reception to thickly inhabited centers and too few or none at all, to sparsely settled areas, which are not such attractive markets."

Owing to the fact that the Broadcast Division will hold its regular executive meeting Friday Afternoon the Allocation Hearings will be adjourned at noon on Friday until next Monday. Therefore there will be no daily Bulletin until that dated October 12.

(NOTE—In Mr. Maland's complete statement which follows reference is made to certain figures and exhibits which are not reproduced in this Bulletin. However, his references explain what these figures mean.)

Mr. Maland said:

### Member of Group

My name is Joseph O. Maland. My residence is Des Moines, Iowa. I am vice-president of the Central Broadcasting Co., and manage WHO, a broadcast station operated by that company under a license issued by the Federal Communications Commission. My company is a member of the Clear channel Group, and I am making this statement in behalf of the Group.

Two words, somewhat inconspicuously placed in the notice of this hearing, are packed with more tantalizing and elusive opportunities for debate than will be found in the several pages of technical topics. These two words are "social" and "economic."

Logically, I suppose, economic questions should be discussed by an economist. I am not sure what kind of an expert social questions require. So far as I know, I am not an expert in either field (although I reserve the right to withdraw this confession), but, like our chairman, Mr. Craig, I am just one of the executives charged with the operation of a clear channel station. Frankly, I do not know where we could have found an expert really competent to throw any light on such economic and social issues as may be raised in this hearing. These issues are so closely intertwined with technical, legal and other problems thought to be peculiar to the industry, that it is not easy to unscramble them. The members of our Group have concluded, therefore, that it would be of more assistance to you if the issues were discussed from a practical standpoint by one of us who has had continuous and intensive experience in the business side of broadcasting and yet is not unfamiliar with the technical background. The choice has fallen on me.

I do not mean, of course, that the peculiarities of broadcasting call for the application of any radically new rules, economic, or social. As a matter of fact, almost the opposite is true, if it is to continue on a sound basis. On the economic side, broadcasting is a medium of advertising, and belongs to rather a large family of advertising media, including the newspaper and the magazine. On the social side, broadcasting is an agency of mass communication and belongs to a family which embraces, in addition to the newspaper and the magazine, the moving picture theatre, the public platform, and other relatives, some closely akin and some very distantly. These facts are often obscured by the impressive technical and legal clothing which radio engineers and lawyers have thrown over our industry, and by some of the surprising deductions that others have drawn by looking at the clothes only. Strip the industry of its technical language, however, and you find



pretty much the same sort of creature as the members of its family on both sides who have been familiar figures for years and even centuries.

### Economic and Social

Since I am apparently the first witness to deal specifically with economic and social issues at this hearing, I have the privilege (and the responsibility) of selecting my own definitions. I have chosen the very commonplace method of reference to the dictionary for my starting point. Among the wide choice of meanings provided by Webster, I have chosen a definition of "economic" which, with a little paraphrasing, reads:

"of or pertaining to the management of a business with reference to its source of income, its expenditures and its maintenance or productiveness."

The word "social" was not quite so easy; any definition I could find was somewhat of a circle. So I have taken Webster's definition of "social" as

"of or pertaining to society or a social organism."

although I am not completely satisfied with it.

The dividing line between the two words is not difficult to find so far as broadcasting is concerned. Expressed in their simplest terms, for the purpose of this hearing, "economic" seems to me to have to do with the industry's means of support, principally advertising; "social", I think, has to do with the industry's means of serving the public, its dissemination of program service. As would naturally be expected, there is no hard and fast line between the two for they frequently cross paths and react on each other. The difference is largely a matter of emphasis but nevertheless it is important.

So far as clear channels are concerned, there are two proposals before you of sufficiently important character to call for discussion of their economic and social effects. One proposal, to which our Group is opposed, is that clear channels be abolished or reduced in number. The other, which our Group supports, is that the power minimum on clear channels be raised to fifty kilowatts and that the present maximum limitation of 50 kilowatts be removed. As you know, there are other proposals in which we are interested but they are of minor importance compared to these two.

### Economic Effects of Proposals Relating to Clear Channels

Before taking up the economic effects of either proposal, I must review with you a few elementary facts about the business side of broadcasting.

Broadcasting is supported by the sale of time, most of it to American business concerns desiring to bring their products or services to the favorable attention of the public. There are, of course, sales of time for other purposes, one such purpose being considerably in evidence during these pre-election months. It will serve to simplify the discussion, however, if I assume that the sale of time is all for advertising purposes.

### American System of Ownership

This economic basis was made inevitable when the decision was made, back in what Mr. Craig has called the prehistoric days, to have broadcasting carried on under the American system of private ownership and operation as contrasted with the system of government ownership and operation, accompanied by the licensing of receiving sets, so prevalent in other parts of the world. In his opening address at the Fourth National Radio Conference in 1925, the then Secretary of Commerce said:

"The decision that we should not imitate some of our foreign colleagues with governmentally controlled broadcasting supported by a tax upon the listener has secured for us a far greater variety of programs and excellence in service free of cost to the listener. This decision has avoided the pitfalls of political, religious, and social conflicts in the use of speech over the radio which no Government could solve—it has preserved free speech to this medium."

It is not necessary in this gathering, I take it, to justify the decision. I am sure that the American public, as a whole, does not regret it, particularly when it now sees that in some of the countries where other systems prevail the broadcasting systems have become tools in the hands of dictators, that in none of them does freedom of speech obtain in the sense that we know it, and that none of them offers a program service even remotely approaching ours. If a decision had been made the other way, we should not be having a hearing such as this although we might be gathered

together to protest against the size of license fees the Government was charging for the use of our own receiving sets or to complain about the quality of programs the Government was broadcasting.

There was another important decision made back in those early days, which has had both economic and social effects. It was, that a monopoly of broadcasting would not be tolerated. The Third National Radio Conference went on record as being "unalterably opposed to any monopoly in broadcasting" and the Secretary of Commerce said:

"It would be unfortunate, indeed, if such an important function as the distribution of information should ever fall into the hands of the Government. It would be still more unfortunate if its control should come under the arbitrary power of any person or group of persons. It is inconceivable that such a situation could be allowed to exist \* \* \*."

This decision, which was reflected in the laws passed by Congress in 1927 and in 1934, is again one that I am sure no one regrets.

### System Has Grown

Our system has grown, has prospered, and has served the public, on the economic basis of advertising. No system, however, is perfect, and we must reckon with the dangers in ours. The principal danger in our system is not that which you most often hear charged against it, namely, excessive or undesirable advertising. Such missteps as may have been made in this direction were, I am convinced, merely the growing pains of a young industry, accentuated by the depression. The real danger in the economics of broadcasting is that the interest of the advertiser in reaching large masses of listeners, and the profit that is to be made in accommodating him, will result in laying down too many tracks of good reception to thickly inhabited centres and too few, or none at all, to sparsely settled areas, which are not such attractive markets. Analyze these issues that now face you to see if underneath the elaborate technical charts and graphs and the impressive statistics and tabulations you do not find a fundamental issue between those who want more stations in cities that already have stations and those who are striving to preserve what there is of rural reception and to improve it.

### An Autocrat

An autocrat can place his country's broadcast stations where he chooses and see to it that all parts of his domain are as well served as the state of the art permits. Our stations must be so located and given such assignments of frequency, power and hours of operation that they can survive economically. Fortunately, there is nothing in our system which prevents our doing as good a job in laying down tracks of good reception as the autocrat. There is simply the temptation and pressure to do otherwise, which must be recognized for what it is and guarded against. That, I take it, is one of the essential purposes of inserting the phrase "public interest, convenience or necessity" in the radio law, to be sure that the listener's rights do not suffer because of some private interest.

Let us turn now to a study of the broadcasting industry's source of revenue, and the prospects for its future increase. This will help us determine whether, as an industry, it can afford to make expenditures such as are contemplated in proposals for higher power and the consequent increase both in investment and in cost of operation. Let us take the source of revenue for all business, the national income, as our starting point.

Figure No. 1 shows the income produced in this country since 1929 (the first year for which this information is available), in terms of billions of dollars. The information is taken from a report of the Division of Economic Research of the Department of Commerce. No graph is necessary to inform you that in years prior to 1929, or perhaps a year or two before then, the trend has been steadily upward from the beginning, not in a straight line, of course, but varied by peaks and depressions. As shown by the graph, our national income in 1929 was \$81,034,000,000. By 1932 it had declined to \$39,545,000,000, but since then there has been a steady increase to \$52,959,000,000 in 1935 and it is freely predicted that for 1936 it will exceed \$60,000,000,000. Even were it to remain at its present point, the financial condition of the broadcasting industry as a whole would be healthy. But the trend upwards is not going to stop with 1936.

### National Income

Out of this national income is paid the bill for advertising. In terms of dollars, as you would naturally expect, it follows the



same general trend as national produced income. Figure No. 2 is a graph prepared by the Bureau of Foreign and Domestic Commerce in the Department of Commerce as a general index of advertising activity from 1922 to 1935. Note that its peak year was 1929 and that its low point was 1933, a year after the bottom had been reached in national produced income. Since then, general advertising activity has followed an upward trend, keeping pace with the income out of which it is paid. One significant point is that in 1935 the general index of advertising activity stood 42 points below the 1929 peak and 20 points below the 1928-1932 average. In other words, advertising volume will have to increase 25 per cent before it reaches anything like what might be called normal and approximately 55 per cent before it reaches the 1929 level.

Out of that portion of the national income which pays the bill for advertising, the broadcasting industry is supported. The industry is too young to be armed with any great amount of statistics. It was not really until 1928 that it entered the commercial advertising field, which it has had to share with other media of advertising, including newspapers, magazines and outdoor advertising, competing at every turn for the advertiser's dollar. It enjoyed less than two years of commercial advertising activity before the depression set in. Nevertheless, swimming against the current, its revenue continued to rise until 1932 when it suffered its only decline, reaching its low at the end of the year. Since 1933 its rise has been sharp, both in terms of dollars and when compared to the advance of other media.

### Advertising

Figure No. 3 is a graph prepared by the Bureau of Foreign and Domestic Commerce, made public last March, showing the annual index of advertising volume of the five classes of major media from 1921 to date. The first comprehensive compilation of statistics on broadcast advertising was made by the National Association of Broadcasters for the year 1934. Prior to that year we have only estimates. The estimated total gross receipts for 1933 amounted to approximately \$57,000,000. In 1934 they rose to \$72,887,169, an increase of 27 per cent over 1933. The receipts for 1934 thus equalled, if they did not actually exceed, the previous peak year of 1931 when, according to the calculations of the Federal Radio Commission, corrected for duplications, the total gross revenue ranged between \$70,000,000 and \$73,000,000. At this point let me utter a word of caution. The figures I am giving you are gross revenue, not profits. The survey made by the Federal Radio Commission in 1931 shows that the industry as a whole was operating at a net loss, and this was the peak year up to that time. Broadcasting had had a decade of being heavily in the red before it even approached breaking even, and it was thirteen years old before it crossed the line into the black. Broadcasters were losing anywhere from a few dollars to half a million dollars a year in that earlier period.

### New Level

In 1935 a new high level was reached, with a total of \$87,523,848, a gain of 20 per cent over 1934. That the figures for 1936 will exceed those of 1935 is evidenced by the fact that the total for the first six months was \$50,802,179, an increase of approximately 13 per cent over the corresponding period in 1935. I realize how dangerous it is to predict or to raise false hopes for the future on the basis of past performance. The fact is, however, that, reducing the trend to terms of dollars, we may expect a substantial increase in broadcast advertising by the time advertising activity reaches a normal level and a very large increase if and when the 1929 level comes.

This, however, is on the assumption that broadcast advertising will remain at a standstill in its relative position among advertising media. Figure No. 4 is a graph showing a comparison between the index for broadcast advertising and the general index of advertising activity. If the relative trend is maintained, the industry may look forward to even greater increases than are indicated by the percentages and the sums I have mentioned.

### Outlook for Increased Revenue

The truth is that not only is the outlook for increased revenue from broadcast advertising better than at any earlier period in the history of the industry but broadcasting is today outstripping all other media in its bid for a share of the advertiser's dollar. This is attested every day by actual events.

Figure No. 5 is a chart showing the percentage increases each year during the past three years in advertising volume of the four media,

broadcasting, national magazines, national farm papers and newspapers. It shows the following:

	1933	1934	1935
Broadcasting	-18%	+27%	+20%
National magazines	-16%	+21%	+5.9%
National farm papers	-17%	+29%	+7.0%
Newspapers	-11%	+10%	+5.8%

Yet, in the face of all that I have said, the broadcasting industry received but 10.8 per cent of the amount of money spent in 1934 for advertising in the major media, and but 11.9 per cent in 1935. The future is one for optimism, indeed, if broadcasting continues to enjoy the favor of its large listening public and thus to be an increasingly attractive method of reaching that public.

Certainly, as we review these figures we cannot help being impressed with the fact that here is an industry that can well afford, and might justly think it a duty, to turn some of its profit to the high aim of improving the tracks of reception into American homes, so that, so far as possible, the signal that is now marred by its weakness, or by static, or by other electrical disturbances, may be lifted to the level of satisfactory program service and so that a greater measure of service can be extended over those vast rural and remote areas where it is most needed and appreciated and where, in some respects, it renders its greatest service and is more of a necessity than a luxury. This means the placing of all equipment in efficient condition, in keeping with the advancing standards which the Commission's technical staff has so competently and so reasonably devised for the sake of the listening public. More than that, it means higher power for those that are lagging behind, such as those who are using only five kilowatts on a clear channel, and higher power for those who are financially prepared and willing to pioneer ahead on other clear channels. It means higher power for the regionals and the locals, an advance all along the line throughout the broadcast spectrum with due allowance for those cases where economic support may not yet have reached a point that will justify the expenditure. The figures show, in my opinion, not only that the industry can well afford to lay down these improved tracks but that there will be plenty left over to take care of prospective developments in television, experimentation with the ultra-high frequencies, and any other development that may be on the horizon. Such a course is not inconsistent with the selfish interest of the broadcasters themselves.

### What Does High Power Mean?

What does higher power mean from the economic standpoint? What, if not more circulation? The attraction of the broadcasting station to the advertiser lies primarily in the fact that it delivers an interference-free signal at a satisfactory signal strength over a territory inhabited by a certain number of people. I do not mean, of course, that stations will not differ in their "circulation" for other reasons, such as the good-will built up through excellent programs, the ability of executives, and other factors. They *do* differ, but these are variables under the control of the station owners and to avoid complicating this discussion I must assume they are equal in such respects.

Our technical experts tell us that the broadcasting industry is today failing to deliver what might be described as primary daytime service to about 75 per cent of the area in this country, containing over 40,000,000 people, not to mention the deficiencies in its nighttime service. There are enormous areas and millions of people that have *no* reception at day and only intermittent service at night. You appreciate, I am sure, that I am discussing this from a coldly business point of view. The social aspects of the failure to reach this large territory and these millions of people belong under my second subject-heading. It is not without reason that there is only one receiving set for every 8.82 persons in rural areas as against one for every 4.35 persons in the cities. Here is a large potential circulation, which is untapped and which advertisers can reach, in the daytime particularly, only by using newspapers, magazines and bill boards. We speak of economics. Is it good economics for the industry to attempt to lay down tracks of good reception to this larger audience and to improve the tracks to the present audience? Or is it good economics for the industry not only to ignore the potential audience but also to cut down its present audience still further and surrender it entirely into the hands of other media?

### Answer Clear

To me, the answer seems clear. The industry as a whole will gain in revenue as it gains in circulation and as it gives better



assurance that its programs will reach what it claims as its present circulation. It will lose in revenue if it decreases its present circulation by cutting off listeners through interference. Much of its present circulation is like a newspaper printed in poor type, on obsolete presses, with large portions of it so blurred or faint as to be illegible, and delivered by an unreliable carrier system.

This is not the proper time in which to discuss the ability of particular stations in particular localities to meet the expense of going to higher power. As Mr. Craig has already pointed out, for economic reasons traceable directly to advertising support, some cities and regions are able to support 500-kilowatt stations on clear channels immediately. Others are not quite ready. As you know from the applications pending before you, some clear channel licensees are ready and anxious to take the step tomorrow if you will permit it, and others are holding back. Others are reluctant to do so immediately but would if the only alternative were to suffer duplication on their channels. All matters such as the financial ability of the applicant to make the expenditure, his wisdom in doing so and the capacity of the city and region to support the station, can, if they become pertinent, be decided on the hearing of each particular application.

### Statistics

You may, however, be interested in a few statistics of a general character on this subject. The approximate additional cost of installing a 500-kilowatt transmitter, by those now having 50-kilowatt stations, exclusive of such matters as land and buildings that may be involved, is estimated at \$310,000.

As Mr. Chambers has shown you, once the initial outlay has been made, the additional cost of operating with the increased power does not present any serious economic questions. Such an increase would normally and necessarily be followed by an increase in rates on the part of clear channel stations. I have endeavored to obtain some idea of how much this increase would be but it is impossible to form any definite conclusion. In the one example we have, the increase in rates has been a little over 25 per cent. Others, whose rates are probably already too low, might have to adopt a somewhat greater increase. From what I have already stated with regard to the trend of broadcast advertising, and with the increased coverage that would result, it can hardly be doubted that the higher rates would be easily absorbed and would be met cheerfully by advertisers.

At this point, I want to digress for a moment to point out a characteristic of the clear channel licensees composing our Group which is very significant. I do this without intending to make any invidious comparisons, for I know that there are many others outside the Group of whom the same may be said. But, in general, this Group is comprised of concerns that have put service ahead of dollars and cents, that have been in broadcasting since its prehistoric days, that made heavy expenditures and suffered tremendous losses for years before they operated their stations at a profit, and that, in general, have poured what profit they have made back into better equipment, higher power transmitters, and better program service, instead of taking that profit in the form of dividends. In the main they have grown from tiny installations of 50 watts or less to efficient modern plants of 50 kilowatts and, in one case, the station has grown from 20 watts to 500 kilowatts. In general, they had expended anywhere from about \$200,000 to as high as \$2,000,000 before they operated at a profit. Only a minority of the number have ever paid any dividends; those have been only in recent years and in modest amounts of five per cent annually. The very small percentage of their time devoted to phonograph records (in eight instances none at all) tells you something of the responsibility they feel with respect to their program service, as do also their monthly expenditures for talent which run as high as \$40,000. I mention these circumstances to show you that the members of our Group and, I think, clear channel licensees generally, have had a high conception of their trust from the outset, and that they can be relied upon to accept an enlarged trust with the same spirit.

### Another Side

Now let us turn to another side of the picture, the effect of the two fundamental proposals on other broadcasters, regional and local. First, I lay down the general premise that, even from the most narrowly selfish point of view, no part of the industry has anything to gain from a proposal that hurts the industry as a whole or that impairs the service now rendered by it to the public or that blocks the way to improvement of that service. Its "cir-

ulation" cannot be cut down without playing into the hands of competing media, with an eventual adverse effect on all members of our industry. Future increases in that "circulation" cannot be prevented without a similar adverse effect on the industry's natural growth, shared in by all its members. Fortunately, however, it is unnecessary to rely on these broad principles to prove my point. The proof is at hand in obvious facts and trustworthy statistics.

Consider, first, the effect of introducing duplication on clear channels. What will be the economic corollaries for those very station-owners that now propose it, the National Association of Regional Broadcast Stations? The most obvious corollary is that there will be more stations which, with respect to power and coverage, will in general fall in the category of regional stations. Where will those stations be located? This is not difficult to forecast from past history and present tendencies.

### 667 Broadcast Stations

There are about 667 broadcast stations in the United States, scattered over the country, but, as you have seen from the technical exhibits, with a heavy concentration in the northeast. Ignoring the existing duplication on certain clear channels, there are 47 dominant clear channel stations located in 35 metropolitan areas, the most populous being the New York City area with 10,901,424 people and the least being Hot Springs, Ark., with 20,238 people. In those same metropolitan areas are 135.5 other stations, 98 of them regional and 37.5 local. I am including daytime and limited time stations on clear channels as regional, and, where two stations divide time, I count them as one station. Daytime and limited time stations I am counting as separate stations. On this basis, there are 280.25 regional stations and 250.25 local stations. Thus, 35 per cent of the regional stations and 15 per cent of the local stations are now in metropolitan areas where clear channel stations are located.

It is impossible to say categorically how large a city or trade area must be to support a regional station. So many intangible and variable factors enter into such a calculation, including, of course, the number of other stations in the city, their power and coverage, the wealth of the community and other items. I have heard it said that a city should have a population of about 75,000, and about 150,000 in the station's service area, to support a one-kilowatt full time regional. I do not know whether this is correct but it will serve as a basis for some statistics I want to leave with you. There are, it happens, ninety cities in the United States with a population in excess of 77,000, the ninety-first being Manchester, New Hampshire, with a population of 76,834, under the 1930 census. This is not on the basis of counting every separate municipality; it is on the basis of metropolitan areas. In the ninety metropolitan areas there are 168 regional stations and 89 local stations, or about 60 and 30 per cent respectively of the totals.

### Different Angle

Figure No. 6 approaches the issue from a somewhat different angle. It shows the location of stations in cities of various sizes in population, those above one million; those from 500,000 to 1,000,000; those from 100,000 to 500,000; those from 50,000 to 100,000; those from 25,000 to 50,000; 10,000 to 25,000; 5,000 to 10,000; and those below 5,000. The figures with regard to revenue require some explanation and some qualification. They are taken from the station renewal applications on file with the Commission, reporting the gross revenue. It is rather obvious that several different theories of bookkeeping and accounting have been followed, and variations due to the amount charged to executive salaries, depreciation and other items are in all probability very great. Still, as averages these figures serve a useful purpose and cannot be ignored. They show a steady decrease in average as the population decreases, although particular instances will vary greatly because of the presence or absence of competition, the desirability of frequency assignments and so on.

### Study of Rates

As we turn to a study of rates we arrive at somewhat the same conclusions. The best unit for comparison seems to be the highest, the nighttime quarter hour rate. Taking the last issue of Standard Rate and Data Service as the source of information, we find that the lowest rate in the country is \$1.80 charged by a local station with power of 100 watts at Dublin, Texas; and that the highest is \$532 charged by a clear channel station with power of 500 kilowatts at Cincinnati, Ohio. Between the two extremes, the classes



of stations cross paths as to rates just as they do with respect to revenue.

Figure 7 shows the average rates for the several classes of stations in cities of the same population classification as shown in the previous exhibit. This exhibit is exceedingly interesting, as it portrays the rate at which rates decrease as population decreases and also as coverage decreases. The progression is not entirely mathematical but it comes very near being so. The rates strongly suggest that the operation of clear channel or regional stations in cities of less than 50,000 is, as a rule, a very doubtful venture from a commercial point of view. So many factors enter into the matter, however, that I refrain from making any more positive statement.

### Method of Approach

The next significant method of approach is in terms of pressure exercised for new stations as evidenced by applications for new stations, or for better assignments of frequency and power by existing stations. For this purpose, we made an analysis of all applications pending before the Commission, and all applications which have been denied during the past year, in an attempt to ascertain to what extent they came from cities that already had anywhere from one to five stations or more. The results are incorporated in Figure No. 8. This is based on a very elaborate analysis which is in our possession in typewritten form and which shows, with reference to each city from which such an application has proceeded, the number and classes of stations located there and the kind of station applied for. Let me say in explanation of this exhibit that for simplicity the stations have been classified entirely in accordance with the type of channel; in other words, a daytime station on a clear channel has been counted as a clear channel station. You will notice that while 71 of the pending applications are from cities that have no stations, only eight affect clear or region channels. The others are locals. These eight are from the cities having populations as follows:

St. Cloud, Minn.....	21,000
Traverse City, Mich.....	12,533
Helena, Mont.....	11,803
Sarasota, Fla.....	8,398
La Cruces, N. M.....	5,811
Marysville, Calif. (2 applications)...	5,763
Mt. Pleasant, Mich.....	5,211

The eight which were denied last year were from cities having populations as follows:

Ann Arbor, Mich. (2 applications) ..	26,872
Johnson City, Tenn.....	25,080
Cheyenne, Wyo.....	17,361
Du Bois, Pa.....	11,593
La Grand, Ore.....	8,050
Lufkin, Tex.....	7,311
Twisp, Wash.....	335

Thus, out of a total of 124 clear and regional channel applications now pending, 116 were from cities already having stations. The detailed analysis shows, in general, that the more stations a city has, the more applications are pending from that city, although this is not always true. New York City has five, Los Angeles 4, and so on.

### Other Straws

There are other straws which give additional evidence of the tendency. The applications for new stations that have been granted in the regional and daytime clear channel classes during recent years constitute one of them. The applications on the part of regional stations, and even of local stations, to move from smaller towns and cities into larger cities which already have stations constitute another. We have not attempted to make an analysis of these two categories but we are sure that instances in point will readily occur to all of you.

Figure 9 is a study of pending applications and of applications denied during the past year from the standpoint of cities of various sizes with respect to population. Forty-seven of the applications came from metropolitan areas having a population of 1,000,000 or more, and thirty-six of these were for assignments on clear or regional channels. Only nineteen came from towns of less than 5,000 and fifteen of these were for locals. The greatest number of applications (130) in any one population group was from cities of from 100,000 to 500,000, of which fifty were for assignments on clear or regional channels.

Even these Figures 8 and 9 and the supporting analysis are by no means a true indication of the actual pressure from the cities that already have stations. The Commission's present regulations, and the standards recommended by its engineering staff, although not always adhered to, have undoubtedly kept down the number of applications, particularly in the congested cities where a new station could hardly be fitted in without reducing the traditional 50 kc. separation to 40 kc. or even less.

### One Station

There is no city with a population over 81,000 that does not have at least one broadcasting station. The largest city that has none is Saginaw, Michigan, with a population of 80,715, and it might well be included as part of the same community as Bay City, Michigan, which has a station. Figure 10 is a tabulation of cities having populations from that figure down to 20,000 that do not have stations. Incidentally, I have discovered that, due to oversight, this list is not entirely consistent with the analysis supporting Figure 8, and includes a few cities as separate municipalities that were considered as parts of communities listed in the analysis. In this list you will find a number that have had stations in the past but whose stations, with the approval of the Commission, have been moved to larger cities. I have counted fifteen that had stations according to the Commission's allocation list of June 30, 1928, and know that there must be others, such as in the case of the regional station in my state that was moved from Waterloo, Iowa.

There are seventy cities on the list. All but eleven of the cities are east of the Mississippi and for those that are west of the Mississippi, five are in Iowa (of which three formerly had stations and gave them up) and two each are in Minnesota, Missouri and Texas. Of the fifty-nine cities east of the Mississippi, all but two are north of the Mason and Dixon line, the two exceptions being in Georgia and Tennessee. Forty-three of the remaining fifty-seven are in five states, Massachusetts, Connecticut, New York, Pennsylvania and Ohio. The reasons for their not having more stations will, from a technical point of view alone, be readily appreciated.

It is significant that, with the exceptions I have mentioned, every city west of the Mississippi or south of the Ohio River with a population over 20,000 has a broadcast station. The four cities mentioned in Mr. Ring's testimony as having a population of between 50,000 and 100,000 and as being without broadcast stations, are, according to our calculations, two in Ohio (one of which formerly had a regional station and the other a local), and one each in Massachusetts and Michigan.

### Figures Not Conclusive

I hesitate to say that these statistics and figures are worth much or little. I grant they are not conclusive. We have had to take what we could find and put it together for what it is worth. When, however, these various straws are added to what I think each one of us knows in his heart to be true, perhaps one or two additional conclusions may be ventured as to the economic effect of breaking down clear channels.

The first of these conclusions is that, by paying the price of destruction of present or future rural service, we shall merely get additional stations which in general will belong to the regional category and will be located in cities already well supplied with stations. If this is true, while undoubtedly a few regional broadcasters who are dissatisfied with their present facilities may draw something attractive out of the grab-bag, if they scramble soon and hard enough, the rest of them will simply draw additional competitors seeking to win the attention of their audiences and the favor of their advertisers.

### Second Conclusion

A second conclusion is that, in general, this breakdown will not provide broadcast service to any appreciable amount of that portion of the country's area and population that is not now receiving service. Until you get down to cities having a population of less than 50,000, the cities of this country are wonderfully well supplied with broadcast facilities. Until you get down to cities having a population of less than 20,000, with only a handful of exceptions, all parts of this country, except a relatively small section in the northeast, are supplied with broadcast facilities. A city of 20,000 in the rural south and west is something very different as a centre of population from a city of the same population in Massachusetts or Connecticut. The former is usually the focus of



a sizeable tributary area, of farms and villages; the latter is flanked with many other cities of equal or greater population packed into a small area, each with only a tiny tributary area surrounding it. In any event, it seems obvious that no matter what happens to clear channels you cannot find facilities for every one of these cities crowded together on either regional or clear channels. It is not possible even to find positions for local stations in most of these areas. They must share their radio service with other cities close by. By reason of the congestion of stations in this part of the country, and thanks to the high power clear channel station, those listeners are now getting better than the average service given to the rest of the country.

I am sorry that we cannot give you a breakdown of cities having population less than 20,000 but time has not permitted. From such study as we have made, however, I am convinced that in general the same situation obtains. The heavy majority of these small cities will be found east of the Mississippi and north of the Ohio.

Let us turn now to the other fundamental issue, raised by the proposed elimination of the power maximum on clear channels. Suppose that the Commission acts favorably on this proposal, and as a result a number of 50-kilowatt stations increase their power to 500 kilowatts. There are, I understand, thirteen such applications pending, and no one has announced any intention of asking for greater power.

What will be the economic effects of such a power increase on existing regional and local stations? By way of introduction to my answer, I shall make an assertion that may have the ring of a challenge but I am confident that I can demonstrate its truth. Regional and local stations, as a whole, will benefit and not suffer from the increase.

### Technical Facts

Take the physical technical facts as a starting point. These, at least, are not difficult to prophesy. A 500-kilowatt station will deliver a signal at any given point slightly over three times the signal a 50-kilowatt station would have delivered at the same point. Its contours in terms of field strength will be somewhat enlarged, although not anywhere as much as the layman might expect, as you have already seen from the technical exhibits. I confess I am utterly unable to understand the thought the President of the Columbia Broadcasting System expressed yesterday in this connection. He said, as I understood him, that this tripling of signal strength would make such a difference that Columbia would be forced to drop affiliate stations located within the primary service area of the clear channel station. A few minutes later he said, as I understood him, that this same tripling of signal would not substantially improve rural and remote service. In any event, take any field strength you want, ten millivolts or five or two or one-half a millivolt, and you will find the contour somewhat further out and including some cities and towns that were not included within the corresponding contour of the 50-kilowatt station. The 10-millivolt contour, of course, encircles the area in which a signal satisfactory for city-dwellers is delivered, according to the Commission's standards. The 2-millivolt contour does the same for the residential or suburban dweller. We can, I think, disregard anything beyond the 2-millivolt contour, since the signal is insufficient for listeners in any communities likely to have broadcast stations. And I suspect that Columbia would not drop any affiliate unless it were located at least within the five-millivolt contour and perhaps closer.

### Signal Strength

It becomes of interest, then, from the purely technical point of view, to form some idea of what regional and local stations come within the new zone of satisfactory signal strength added by the increase in power of the clear channel station. In order not to inflict too many different figures on you, we arbitrarily selected the 5-millivolt contour as the test. One of our technical staff prepared a map, which I shall refer to as Figure No. 11, on which are plotted the theoretical 5-millivolt contours of the thirty-one 50-kilowatt stations in this country and of the same stations if increased to 500 kilowatts. These contours were based on the curves published by the Commission's engineering staff and on information as to conductivity data which is believed trustworthy. The Commission's standard of antenna efficiency for clear channel stations was used. Figure 11-A lists the stations whose contours were thus plotted, with their frequencies, their radii to the two contours, and the conductivity assumed. While this map is, in a sense, theoretical, it is, we believe, sufficiently close to fact to be used for the pur-

pose I shall make of it. On the whole, its assumptions tend to include a larger number of regional and local stations than are really in any danger of being affected. Certainly, no one really anticipates that 31 of the clear channel stations are going to construct 500-kilowatt stations in the immediate future.

By examination of this map, we find that 97 regional stations (counted by licenses) are within the 5-millivolt contours of the thirty-one stations at present and that, if they increase their power to 500 kilowatts, 24 more will come within those contours, an increase of 24 per cent. Of the 24, nine are affiliated with networks, four with NBC and five with Columbia. These are the stations which will lose network connections if Mr. Paley's prophecy is correct. There are 59 local stations (counted by licenses) within the present contour and 26 more within the new contour, an increase of 44 per cent. None of these is affiliated with a network and consequently no local will be injured in this respect.

### Bridges to be Crossed

There are several bridges that must be crossed before there is even a debatable question raised. If, for example, the regional station is accorded a horizontal increase of power to 5 kilowatts, then the relative difference between its signal and that of the 50-kilowatt station which has increased to 500 kilowatts will be imperceptible to the human ear. Even without this, the regional station will deliver a signal for a considerable area around its transmitter that is much stronger than the clear channel station can compete with. A regional station of one kilowatt on 900 kc., with average conductivity will, I am told, give a signal of 5 millivolts at 14 miles from its transmitter, and a 100-watt local station, under the same circumstances, at 5½ miles. Within those contours, the regional and local stations will deliver much stronger signals. At a mile from its transmitter the regional station will deliver around 150 millivolts and the local station about 40 millivolts.

Another bridge that would have to be crossed is that of listeners' habits, the rather marked preference of the listener for the programs of a station located in and serving his city as against those of a station located somewhere else, other things being equal.

Let us cross all those bridges without more ado and attempt to see where we arrive. What sources of information have we for that purpose? What better than the actual experience, past and present, of regional and local broadcast stations that have actually been encircled within the 5-millivolt contours of clear channel stations as they have progressed from 5 kilowatts or less to 50 kilowatts? At this point, we have an opportunity to be unfair to our opponents. We have made a superficial check of the financial record of regionals and locals under such circumstances to determine what has happened to their gross receipts, their net revenue, and their rates as the clear channel stations have made this increase in power. They have shown a remarkable gain. It was not necessary to make more than a superficial check, however, to realize that the return of prosperity is more responsible for this than any increase in the clear channel station's power.

### Method of Approach

We have, therefore, chosen another method of approach. It has its weaknesses but it is the best that can be done. Taking the last renewal applications of regional and local stations as our source of information, we have calculated the average monthly profits of regionals and locals within the 5-millivolt contours of 50 kilowatt clear channel stations and have compared these figures with the average monthly profits of regionals and locals outside those contours, as well as the over-all averages. We have, of course, excluded non-commercial stations and 130 locals. The averages are based on returns from 160 regional stations and 130 locals. The average monthly profit of all regionals (so far as shown by the applications) is \$2,534.84. The average monthly profit of regionals outside the 5-millivolt contours is \$1,894.10. The average monthly profit of regionals within the 5-millivolt contours is \$3,675.05. Incidentally, as a matter of interest, the average monthly profit of the members of the National Association of Regional Broadcast Stations is \$2,904.33, or almost \$400 better than the average for all regionals.

### True of Locals

The same holds true of the locals. The average monthly profit of all of them, as shown by the renewal applications, is \$535.10; of those outside the 5-millivolt contours, \$409.90; and of those within the contours, \$1,187.99.

The highest profits reported by any regional and by any local are from stations located in cities having clear channel stations.



The same is true of the highest profit reported by any regional belonging to N. A. R. B. S.

We endeavored to compile the same figures with respect to the one case where a clear channel station has increased its power from 50-kilowatts to 500 kilowatts. We immediately ran into the difficulty that is to be expected when you attempt to base averages on a few individual cases. There are only two regional stations in Cincinnati, and the renewal application of one of them does not show its profit. If its profit be assumed to be the same as that shown for the other, and this, I believe, is a legitimate assumption, the average monthly profit for all regionals within the 5-millivolt contour of the 500 kilowatt station is \$3,497.60, and, if you exclude a high power regional at Covington, the average becomes \$3,932.97. Otherwise, it drops to \$2,545.45, due to the fact that the station at Dayton, which was moved into that city during the past year or two, records a monthly loss of \$1,800 and the high power regional shows a monthly profit of only \$450. A very similar situation appears in the case of the locals in that area, due to a heavy monthly loss reported in the last renewal application of a local in a small city in Kentucky, although in several preceding license periods that station reported a profit.

It is difficult, therefore, to find any basis in actual experience for the claim that the proposed increase of power of clear channel stations would work injury to regional or local stations. It may be claimed, however, that this method of approach is not fair because it centers attention on regionals and locals in or near thickly populated centers where clear channel stations are located. This claim is not tenable, in my opinion, because no very different question is raised, so far as distance from the principal city is concerned, by an increase in the 5-millivolt contour resulting from use of 500 kilowatts.

#### Further Circumstances

Nevertheless, there are still further circumstances that confirm the conclusion that no injury would result. I shall have to pass over these very hurriedly but they are, I think, so obvious that common sense makes the answer inevitable. The increase of power of the clear channel station necessarily drives local advertising to the regional and local stations. The increased power means increased rates. The local advertiser, interested only in coverage of the city, cannot or will not pay for coverage that for him is wasted on rural areas that give him no market. The clear channel station becomes more and more distinct as an advertising medium, less and less a competitor. To use a familiar analogy, it resembles a magazine read over a wide area as distinguished from a local newspaper.

The experience of all members of our Group already shows that this is, and must be, so. Even with their present power of 50 kilowatts, they find themselves used increasingly and predominantly for national advertising and not for local advertising. A rapid survey of such information as I could get from members of our Group showed that in most cases the national advertising constitutes 90 per cent or more and the local advertising 10 per cent or less of the total. In only two cases does the national business drop below 70 per cent, the lowest being 67.5 per cent. They all tell me that the tendency is marked in this same direction. It is bound to be so. They have all had the experience of losing an increasing amount of local advertising to regional and local stations in the same community. At least two of them have seen regional stations move into their communities in the recent past and take a large share of their advertising from them.

#### Regional or Local

Manifestly, a regional or local station fifty or one hundred or more miles away from the clear channel station will not suffer with respect to its local advertising. In fact, all regionals and locals are more likely to gain than to lose. There is no greater incentive to local advertising than the interest in advertising that is created among prospective local advertisers by successful national advertising. They are awakened to its usefulness. This statement is not susceptible of proof in the legal sense but I dare say every broadcaster in this room will confirm it from his own experience.

What about national advertising? Here, we must recognize two kinds, network and non-network. Let us take first the network. I understand that there is apprehension among a few regional broadcasters that have network affiliations that they may lose those affiliations if clear channel stations in other cities are permitted to increase their power. This apprehension is readily understood in the light of statements such as were made by the President of Columbia Broadcasting System. The number of such instances would, at most, be very limited since the city served by

the regional would have to be close enough to the location of the clear channel station so that the latter would deliver a very high signal strength into the former's territory, at least five and more likely ten millivolts or more. Chicago clear channel stations deliver an average of 6 millivolts into Milwaukee and the Columbia station at Chicago an average, I am told, of eight millivolts. Yet Milwaukee regionals still have their NBC and Columbia affiliations. Suppose, however, that they should lose their present network connections. What reason is there for believing that additional networks will not be established, or for believing that the regional station may not find a very worthwhile mission to perform in additional programs of a local interest? The apprehension is, however, completely unfounded, so far as the independently-owned clear channel station is concerned. The tendency would inevitably be in the other direction, with the clear channel station taking a smaller and smaller amount of network programs and the regional station taking an increasing amount. This is not guess-work. It can be demonstrated from actual experience.

#### Renewals of Regionals

The last renewals of all regional stations that are members of the N. A. R. B. S. (so far as known to us) have been examined to determine the amount of network programs carried by those members that have network affiliations. The process could have been applied to all regionals but would have been tediously long, and we have felt that the N. A. R. B. S. can safely be taken as a representative group. Fifty-two of its members are affiliated with either NBC or CBS. The network affiliates in this Group devote an average of 64.4 per cent of their hours to network programs. So far as we know, only two of these are owned or controlled by either of the networks, in both cases CBS, so that fifty of them are independently owned.

The same process was applied to all the stations that are considered dominant clear channel stations by the Commission, some twenty-one or which are owned or controlled by the networks, and naturally carry a heavy percentage of network programs. Even with the totals thus heavily weighted, the average for all was 63 per cent.

We then applied the process to the members of our Group, consisting of entirely independently owned stations. The average was only 56.7 per cent. The one 500 kilowatt station showed slightly less than 52 per cent. In addition, the tendency is everywhere manifest among such stations to originate their own programs, some, of course, to a much greater degree than others, depending somewhat on the size of city in which each is located. The fact is, that such clear channel stations are being more and more used for a type of national advertising that cannot be handled over a network. It is what, for want of a better name, may be described as regional coverage. Frequently it is supplementary to network advertising and is in no sense a substitute for it. It belongs to the category of national non-network business.

The advertiser who wants regional coverage in the sense of reaching the rural and small town population will not use a regional or local station in any event. He does not do so now and he would not do so if clear channel stations increase power to 500 kilowatts. The advertiser who wants to cover any city of large or even fair population intensively will not use a clear channel station 75 or 100 miles away; he will use a regional or local station in that city, if it has a station. Even in this field of national regional advertising, a tendency is fast developing which bids fair to bring a substantial source of revenue to regional and local stations. This is in the rebroadcasting by such stations of programs disseminated by a high power clear channel station some distance away. Several of our members are already engaged in this arrangement on a large scale, to the manifest satisfaction both of themselves and of local broadcasters. From a technical point of view, this gives ideal regional coverage. The rural areas are served by the clear channel station. The cities and larger towns in that area, where noise levels are too high to permit good reception, are served by the local broadcasters who, by locating receiving apparatus away from the inhabited area, are able to bring the rebroadcast program to their listeners unmarred by local noise. The possibilities of such service will be enormously increased with higher power. In a sense, this is regional network broadcasting.

#### Advertising Revenue

Some idea of the part played by the several kinds of advertising in the total revenue of the broadcast industry is given by the analysis of gross time sales periodically published by the National



Association of Broadcasters. For the past two years and a half, these totals are as follows:

Class of Business	1934	1935	1st 6 mo. 1936
National Network ....	\$42,647,081	\$50,067,686	\$28,181,976
Regional Network ....	717,117	1,110,739	644,473
National Spot.....	13,541,770	17,063,688	11,527,860
Local .....	15,981,201	19,281,735	10,447,870
	\$72,887,169	\$87,523,848	\$50,802,179

The upward trends in all classes of broadcast advertising is clear from these figures. To assume that the possibilities in any class have been exhausted would be absurd. There are limitless opportunities for each type of broadcast station to develop new business from wells that have hardly been tapped, and in this development the clear channel station, on the one hand, and the regional and local on the other, are bound to pursue paths which diverge more and more widely. They will compete with each other less and less as the difference in these paths becomes more pronounced.

I am sorry to have taken so much time with arid figures and to have placed so much emphasis on the prosaic subject of broadcast advertising. So far as the statistics and tabulations are concerned, I shall have to accompany them with the legend "These figures are not guaranteed but are believed to be substantially correct." I have not known how else to meet the economic issues raised by the notice of hearing, in the time we have had for preparation. Perhaps when the Commission has its next hearing of this sort our industry will have better statistics and we shall be able to do a better job.

### More Economics

There is another kind of economics that I am not sure was intended to be covered by the notice but which I should like to mention. That is the economics of hearings before the Federal Communications Commission. I hasten to assure you that I am not speaking of the sort of hearing in which we are now engaged, for I think it, in the long run, represents a saving for both the Government and the Industry. Cooperative effort and a sharing of expense is possible and, if sound regulations result, the effort and expense will be more than repaid. I am talking about useless hearings on applications which are, on their face, contrary to the Commission's regulations or its engineering standards and have, or ought to have, no reasonable possibility of being granted. The Commission undoubtedly already has some conception of the large sums which broadcasters must pay annually to defend their assignments and their listeners against such applications. It seems to us that much will be gained by a rigid adherence to any regulations that may be adopted so that there will not be the continuous temptation to new applicants to gamble on a waiver of the rules.

### Social Effects of Proposals Relating to Clear Channels.

The Commission's request for information on the social effects of proposals made at this hearing can, so far as clear channels are concerned be met by asking two questions which answer themselves. One of these questions is whether it is socially desirable that the broadcast service now being rendered to rural and remote areas be impaired or destroyed. The other is whether it is socially desirable that broadcast service be extended to rural and remote areas that now have no service and that it be improved in those areas where it is now unsatisfactory.

I assume that it is unnecessary to justify broadcasting itself. No one is urging that it be abolished. As an agency of mass communication, it was first a novelty, later a convenience, and now a necessity for large portions of our population. Its social importance is too obvious for discussion. Volumes have been written on all its important social aspects, as a medium for entertainment, education, religious devotions, news and the other ingredients of its daily program. Why, then is it necessary to debate whether the vehicle on which this intangible commodity is transported should be modernized, instead of being antiquated?

With the help of my associates in the Clear Channel Group, I have canvassed everywhere for information with respect to our program service that might be specifically arranged and classified under the heading "social". Our counsel has in his possession a great deal of material which has been faithfully compiled by our station staffs in response to questionnaires. We have examined the information contained in present and past renewal applications of all broadcast stations. We have supplemented this with a reading

of much current literature, learned and otherwise. Yet when it is all done, the student can come to only one conclusion—the entire broadcast program service is important socially, the music and entertainment as well as the education, the sports events as well as the religious services, the comic strips as well as the news. The question at this hearing is not whether any part of it is good or bad but whether the whole should be extended in coverage.

I could devote days to an analysis of the program service rendered by members of our Group, or by clear channel stations generally, or by any class of broadcast stations. There are important differences but you know about them already. A clear channel station with a large coverage endeavors to, and does, provide a program service such as is needed and desired by listeners within that coverage. A regional station does the same for listeners within its coverage. So also does a local station. Consequently, their programs, considered as a whole, differ in the emphasis placed upon matters of general as against more local interest. The market reports desired by a single city are not the same as those desired by a large agricultural region. Neither is the educational or the informational matter. Neither is the music. Neither are the political debates and election news. The sort of program service expected from a 50-kilowatt clear channel station costs more, on the average, than that expected from a 1-kilowatt regional station, although there are instances where the two overlap. For example, the average monthly talent cost of the clear channel stations, as shown by their last renewal applications, is \$8,253.91, the highest being over \$47,000. The average for the regional stations that are members of the N.A.R.B.S. is \$2,233.82; the highest is \$12,726.44.

But I am confident that you do not expect a detailed analysis or comparison of program service, or statistics on program cost.

### Conclusion

We have travelled a long way from our starting point. The requirement that we give thought to the broad economic and social aspects of the issues involved in this hearing has been to our interest and profit. The work has been well worth while, both for its educational value to ourselves and for the conclusion it points to and confirms.

This conclusion is that there is no conflict, as is sometimes claimed, between sound economic and social principles and sound technical principles. Adherence to the latter will further the public or social interest, and at the same time will further the industry's true economic interest. It is non-adherence to sound technical principles that leads to uneconomic and anti-social consequences.

### CROSS-EXAMINATION

Under cross-examination Mr. Maland stated that he believes in the doctrine of competition in the broadcast industry, in a variety of programs and in better signal service to all. He also believes that there is a definite place for local stations. Answering a specific question Mr. Maland said that he did not believe that it would be possible to have thirty 500-kilowatt stations in the next two or three years. He said that in his opinion there is a trend toward the 500-kilowatt station and that eventually this would benefit all broadcasting. There is only one thing that is certain about broadcasting, he stated, and that is that it is going to change. However, he does not see any radical change in the next few years.

### STATION PROFIT

Answering further cross-examination questions Mr. Maland said that his own station is now operating at a profit but he could not tell definitely whether all clear channel stations are now profitable. He is of the opinion, he said, that the shared clear channel stations are now operating at a profit. Mr. Maland said the use of 500 kilowatts with increased revenue might have a tendency to hasten television.

Mr. Maland said that he thought that the Commission should limit the number of high powered stations under one ownership. Increasing cost of thirty 500-kilowatt stations, he contended, could be taken care of by the broadcast industry.

### JOHN C. KENDALL

Judge John C. Kendall made a statement today on behalf of stations interested in part time assignments on clear channels. He said that the operation of such stations, after a trial of 8 years, shows that it is economically unsound.



Mr. Kendall said:

Come now Oregonian Publishing Company, Portland, Oregon, licensee of Station KEX, Westinghouse Radio Stations, Inc., Fort Wayne, Indiana, licensee of Station WOWO, West Virginia Broadcasting Corporation, Wheeling, West Virginia, licensee of Station WWVA, Hot Springs Chamber of Commerce, licensee of Station KTHS, Hot Springs, Arkansas, and WBAL Broadcasting Company, licensee of Station WBAL, Baltimore, Maryland, and in response to the request and invitation of the Federal Communications Commission for the presentation at an informal hearing to be held before it on to wit, the 5th day of October, 1936, of evidence for the purpose of determining what principles should guide the Commission in matters relating to or affecting the allocation of frequencies, and in particular, what changes, if any, should be made in the Commission's existing Regulations, respectfully show,

### Cleared Channels

That heretofore and in November, 1928, the hereinafter named broadcasting stations were assigned to cleared channel frequencies on a time sharing basis, viz,

WBBM-KFAB	— 770 kilocycles
WFAA-WBAP	— 800 kilocycles
WWL-KWKH	— 850 kilocycles
WLS-WENR	— 870 kilocycles
KTHS-KRLD	—1040 kilocycles
WTIC-WBAL	—1060 kilocycles
WPG-WLWL	—1100 kilocycles
KVOO-WAPI	—1140 kilocycles
WOWO-WWVA	—1160 kilocycles
KEX-KOB	—1180 kilocycles

That such assignments to said stations were made primarily for the purpose of making an equitable division of cleared channel service among the various states to meet the requirements of the Davis Amendment of the Radio Act of 1927.

### Assignments Modified

Said station assignments have since been modified as follows:

a. WFAA-WBAP and WLS-WENR now use the same transmitters so that insofar as the listening public is concerned there is a constant signal on the respective frequencies of 800 and 870 kilocycles.

b. WBBM-KFAB have been given experimental authorization to operate in synchronism at nighttime.

c. WWL has received special authority to operate unlimited time on 850 kilocycles while KWKH has received special authority experimentally to operate on 1100 kilocycles, unlimited time, using a directional antenna to protect WLWL and WPG.

d. WTIC-KRLD have received special authority on an experimental basis to operate unlimited time on 1040 kilocycles.

e. KTHS-WBAL operate simultaneously during daytime hours, dividing time at night. However, after 9 P. M. WBAL operates in synchronism with WJZ on 760 kilocycles with a reduction in power from 10 kilowatts to 2500 watts. This makes it necessary for KTHS to remain silent from local sunset to 9 P. M.

f. KVOO-WAPI, WOWO-WWVA and KEX-KOB have been permitted to operate simultaneously during daytime hours.

g. No change has been made in the operating assignments of WPG and WLWL operating on 1100 kilocycles, but as has already been noted, KWKH is now operating on this frequency experimentally, unlimited time.

### Eight Years of Trial

More than eight years of trial and operating experience has clearly demonstrated that the operation of cleared channel stations on a time sharing basis is economically unsound and does not permit of the rendition of the maximum service by such stations to which the radio listening public is entitled.

Present operating assignments of shared time cleared channel stations are economically unsound for the following reasons:

a. The same investment is required for installation and maintenance as is required for a full time cleared channel station, and the operating cost is substantially the same.

b. Due to the fact that nearly one-half of the most valuable nighttime hours are not available there is a substantial loss in station revenue.

c. Listener popularity and station prestige are seriously impaired by reason of the interruption in the continuity of program service.

### Public Deprived

The radio listening public is now being deprived of program service from shared time cleared channel stations which with full time operation from such stations would be available to it because:

a. Shared time cleared channel stations under present assignments are required to observe a silent period up to a maximum of four hours each day during certain months of the year. Such nighttime hours are generally recognized as most valuable from the standpoint of the listening public.

b. During the hours when these stations are forced to remain silent occur the greatest number of programs in which the public is most interested, such as the major commercial programs, local and chain, local and national news reports, market reports, sports events, educational programs, political speeches and other events of public interest.

c. An analysis of the radio listener habits has demonstrated that the early evening hours are the most popular to the rural listener. On account of such silent period the shared time cleared channel stations are unable to render the maximum service to the rural listeners residing within their respective service areas.

In June, 1936, the Davis Amendment hereinbefore referred to was repealed and we submit that the present is an opportune and logical time to make it possible for these part time cleared channel stations to operate full time.

### Conclusion and Recommendation

Based upon the foregoing showing and representations, it is respectfully submitted that the Federal Communications Commission should now amend its existing Rules and Regulations, particularly with reference to Rule 116, so as to permit full time operation on such of the foregoing shared time cleared channel frequencies, as sound engineering standards and practice may determine proper and feasible after a hearing to be held before your body upon due notice to the stations affected.

### HAROLD A. LaFount

Harold A. LaFount, former member of the Federal Radio Commission, also made a statement at the hearing today in which he said that he was speaking in his own capacity and not on behalf of anyone.

He told the Commission that in his opinion without adequate power and with only part time it is almost impossible to operate a station without loss. He also advocated that the Commission delay action on applications of clear channel stations for power increases up to 500 kilowatts "until additional information has been made available."

Mr. LaFount said:

### Engineering Problems

The Radio Engineering problems confronting your Honorable Body have been so eloquently presented by so many distinguished gentlemen that I hesitate to burden you with my views on that subject. However, there are a few additional points which I should like to present for your consideration. Before doing so, I want to make my position perfectly clear. I represent no one. I am not trying to make a case for any individual or any group of individuals. I have absolutely no financial interest in any radio station. My radio experience covers a period of fifteen years, and includes many activities in that field. Nothing I say here should be construed as a criticism of existing practices, rules or regulations, or of any station, chain or group of stations. My purpose is to be constructive and helpful. I present my own opinions, and have reached my own conclusions. They are given to you in a spirit of helpfulness. I have no other purpose in addressing you.

### State of Flux

The radio industry continues to be in a state of flux. This hearing is in recognition of past and impending changes in the structure of radio broadcasting. Those changes have been many in number and far-reaching in effect, and coming as they do with increasing rapidity, it is well to take pause from time to time in order to make an inventory of progress and to chart a course which may be used as a guide to progress in the future. It is for the purpose of clarifying the present position of the radio industry, as I see it, that I shall divide my remarks into three parts, classified as follows:



1. The objective;
2. Present conditions;
3. Suggested improvements.

### Serve the Public

The Federal Communications Commission was created and has been maintained so that it may serve the public interest, convenience, and necessity. It, in turn, must fulfill that responsibility by applying the same yardstick to the hundreds of radio broadcasting stations which fall within the purview of its authority. In this sense, the obligations and responsibilities of the governing body and the governed are identical. The broadcasting industry must, by sincere and continuous cooperation with the Commission, make it possible for this body to effectuate its mandate from the Congress. The Commission must, by the same sort of cooperation, make it possible for the radio industry to fulfill its responsibilities. Without this sort of mutual interest in the common welfare, the very object and purpose of the Communications Act must suffer defeat.

### High Ideals

The path which leads to the attainment of the high ideals prescribed for the industry is marked with pitfalls and barriers. The problems confronting the broadcaster only begin with the issuance of his license. The programs which he will air through the facilities of his station must not only be in the public interest, but must also *interest* the public. As you will appreciate, that public includes authors, actors, carpenters, composers, poets, plumbers, the rich and poor, the young and old, the single and married. It is difficult to conceive of a more highly heterogeneous group than the radio audience. To reach such a group requires that the radio be all things to all men. It places the broadcaster in the position of having to please as many of these diverse elements as possible in the time at his disposal, and by the same token, makes it necessary for him to incur the risk of displeasing one group in order to please another. There can be no question that one of the most difficult jobs on earth is to operate a radio station successfully, not only from the financial standpoint which poses a number of difficult problems, but also from the standpoint of serving the conglomerate public.

### Listening Public

The only phase of the radio broadcasting structure which enters the consciousness of the listening public is the program itself. They may not know which station it is coming from; they may not know whether it is a local or a network program; they do not care how high the antenna is nor how efficient the frequency monitor; they only know whether or not they like what they have to listen to. The observance of the very essential rules and regulations promulgated by your Honorable Commission is, after all, but a means to an end. The end is public service. We must be careful to differentiate between the service itself and the technical or engineering methods which have been adopted to make that service possible.

I, therefore, suggest that the matter of paramount importance to the public is the *radio program itself*. It is upon the success and popularity of these programs that the mighty radio industry depends for its existence. Under the present allocation and program arrangement peculiar to the United States, the radio industry has expanded beyond the expectations of the most optimistic. Nearly three-fourths of a billion dollars was the cost of entertainment by radio in the United States last year. With more homes equipped with radio receiving sets than with either telephones or electric lights, and the annual use of 3500 carloads of lumber, 1500 carloads of steel, and millions of miles of copper wire in servicing the industry, everyone must be impressed with the size of the undertaking of which every broadcaster is a part, and the size of the responsibility which devolves upon him. If he fails in his efforts to entertain or to interest the American public, or to render a satisfactory service to that public, the effect upon this vast industry would be devastating. Again, I acknowledge the importance of satisfactory reception and quality of reproduction, but urge that our prime object should be satisfactory program content and quality of presentation.

### Present Conditions

The present status of the radio art and industry is in many respects extremely satisfactory. The results of your postcard questionnaire, a part of your allocation survey, were gratifying. It proves conclusively that cleared channel stations are produc-

ing the results sought by their creation. The information compiled by your inspectors is likewise most encouraging. As a matter of fact, the results of the allocation survey are almost identical with those I had anticipated, and in my opinion, reflect much credit upon the efficient engineering staff of the Commission. In addition to this information, it is interesting to study the distribution of power which also would justify our expecting the results indicated by your survey.

On January 1, 1936, we had 374 full time radio broadcasting stations. To them was assigned 2,188,650 watts power at night. Of that amount, 2,000,000 watts were allocated full time stations on cleared channels. It should be remembered too that all full time, cleared channel stations are owned, operated or affiliated with one of the three national chains, either The National Broadcasting Company, the Columbia Broadcasting System, or the Mutual Broadcasting System. As I have said, the total night power allocated to the 374 full time stations in this country is 2,188,650 watts. Of this amount 2,130,300 watts, or over 97%, is used by the 165 full time stations affiliated with one of the three national chains. This includes cleared channel and regional stations. It will be seen that we have 58,350 watts power remaining for the use of the 209 independent full time stations.

### Stations Profitable

From my observation almost all full time stations are profitable, especially those having a network affiliation. I have also observed that part time stations are engaged in a struggle for existence. I appreciate the fact that you are not obligated by law to make it possible for broadcasters to operate at a profit. However, I respectfully suggest that morally you are so obligated. In my opinion it is of the utmost importance that due consideration be given the economic aspects of broadcasting.

Under our system, broadcasting is maintained by advertisers, time being sold at rates proportionate to the size of the potential listening audience. There are hundreds of other contributing factors, but power is one of the most important. Without adequate power and with only part time, it is almost impossible to operate a station without loss. With such stations, profit-making is the exception rather than the rule. Under these adverse circumstances, a station cannot hope to fulfill its responsibilities. The ability of any station to support itself, is the measure of its ability to render a public service. One definitely depends upon the other, so that although not directly, you are indirectly responsible for the type of programs broadcast and you are thus the arbiter of the service rendered by all radio stations. Practically all full time stations, and some part time stations, are doing a splendid program job. The chains, especially, are providing entertainment and rendering a service to the American public unequaled on earth. But, gentlemen, all stations cannot be and should not be affiliated with these national networks.

### Chain Broadcasting

Realizing the value of so-called chain broadcasting, smaller groups of regional and local stations are operating successful units. Credit is due Mr. John Shepherd and others for their efforts along these lines. However, do not forget that these unaffiliated full time stations, of which there are 209, have a combined night power of only 58,350 watts, or little more than is assigned to the average cleared channel station. Included in this number of full time outlets there are 153 local, or 100 watt stations. Also, I call your attention to the fact that no independent station in this country has more than 1000 watts power at night.

### 624 Stations

On January 1, 1936, we had approximately 624 stations licensed to operate in the regular broadcast band, 374 full time and 250 part time stations. The total day power allocated to the part time stations was 460,700 watts, and the night power, 328,900 watts. This figure, however, is very misleading. It should be understood that where two stations share time on the same frequency, the power of each is included in the figure given although obviously only one station is on the air at a time. For example, WPG, 5000 watts, and WLWL, 5000 watts, sharing time have been considered 10,000 watts. Of the total power allocated these part time stations, 279,450 watts day power and 265,800 night power are used by stations affiliated with national chains, leaving 181,250 watts day power and only 63,100 watts night power for use by 232 part time, independent stations. Certainly I need not tell you of the many problems confronting these small, independent broadcasters. They have the desire and usually the ability



to render a much greater public service than is possible under such conditions. I have heard it said by some people that these broadcasters should be put out of business. However, from my observation, I find them usually very competent and anxious to render a service, but without a chain connection and without power or adequate time, they are severely handicapped. The solution lies not in eliminating them, but in the elimination of the handicaps which beset them. It is interesting to note the location of these part time stations. For instance, the nine southeastern states have only 19, while the State of New York has 27, Pennsylvania, 18, and Illinois, 21. New Jersey has only two full time stations, and 11 part time stations.

### Part Time Stations

The following states have more part time than full time stations:—Colorado, Connecticut, Illinois, Indiana, Iowa, Missouri, New Jersey, New Mexico, New York, Pennsylvania, and South Dakota. The following states have no part time stations: Tennessee, South Carolina, Wyoming, Utah, Idaho, Kentucky, Rhode Island, Nevada and the District of Columbia. One of the reasons for the existence of so many part time stations is the partial adherence to the Commission's separation requirements which, in my opinion, have outlived their usefulness. I can thoroughly understand why the signal of a southern or western station serving a large area should be protected almost to the vanishing point, but in the east and middle west where stations are very close together, and where programs are so frequently duplicated, such protection seems entirely unnecessary. The eastern and middle western stations frequently have no desire to be heard at any appreciable distance. They have a large population in rather close proximity to the station, thus making an effective appeal to advertisers. However, in the west and south a station must in some instances cover the entire state and even then its potential listening audience is less than 100,000.

### New Frequencies

There seems to be some justification for the belief that broadcasting stations may within a few years be operating in a totally different band of frequencies, the effect of which will be far-reaching. The realization of this fact necessarily causes the smaller broadcaster some concern. It is a cause of concern to this body, and to all broadcasters. If, as a result, the Commission should authorize as many new stations as engineers may make room for, the result would be disastrous to most of the 441 independent stations, and especially to the 250 part time stations. The law of supply and demand is as thoroughly operative in the field of radio broadcasting as in any other competitive field.

### Local Business

As you doubtless know, independent stations must depend largely upon local business for their support. Especially is this true of the local and part time station, and, gentlemen, when you realize that some cities have more radio stations than newspapers, you can be sure that selling enough time to desirable advertisers to make the station profitable is a very difficult task. We should also remember that a few years ago the newspapers handled almost all of the local advertising. Today we have the same number of newspapers, plus our radio broadcasting stations, both depending upon the same source of revenue for their existence. Also, we must remember the amount of advertising a radio station must refuse to accept, in order to conform to the ethical standards of this body, the Federal Trade Commission, and the station's own management. All of these considerations complicate administrative and operative procedures.

### National Advertisers

National advertisers buy time on the national chains. They likewise buy it from the individual chain stations, but national advertisers are seldom interested in buying it from part time or local stations, and only a very limited amount of such business is available. An advertiser is safe in the presumption that the chain station has an audience, due to its ability to present meritorious programs. This ability is not necessarily due to an enterprising station management, but rather results from the fortuitous circumstances that one of the national networks selected that station as an outlet. But, on the other hand, the independent station must prepare and present its own program, sell its own time locally, and with a very limited power assignment, the price they can command from their local advertisers is only a small portion

of that which comes almost without effort to the chain station. It must be remembered also that most of the stations affiliated with the national chains sell time to local advertisers during the day. Consequently, the problems confronting the independent broadcaster becomes still more complicated.

### Place in Radio

But, regardless of all his problems, there is, in my opinion, a definite place for him in the radio picture, unless you permit competition to the point of extermination or absorption. Gentlemen, if I talk for anyone, it is the independent, small broadcaster, who all too frequently has his life's savings invested in his station and possesses a sincere desire to render a public service, but due to the problems here referred to, plus others far too numerous to mention, has a task of tremendous magnitude. I believe in local and independent stations. I know there is a real need for them, and I urge your consideration of the 441 stations not affiliated with national networks. I could not say too much for the chains and what they are doing, but certainly they can and do take care of themselves.

### Unaffiliated Stations

The function which the affiliated station can perform is in many respects distinct and separate from that which the unaffiliated station performs. A local station is in a position to provide a program product to the community it serves, which a network station, devoting much of its time to national broadcasts, cannot hope to perform. The facts which I have reviewed here, are conclusive evidence, it seems to me, that the interests of this large group of independent broadcasters have been sadly neglected. The ratio of the value of local service to the value of network service is incorrectly reflected in the ratio of independent station power to network station power.

These small stations can be of great public service. They are operating under a mandate from this Commission to provide that service. Without adequate time and power, they will remain without adequate revenue. Without adequate revenue, they cannot serve the public interest effectively. Compared with their big brothers, they are in a very disadvantageous competitive position. It is very easy for one to comply with the requirements of the law and this Commission, but the other must start with a very great handicap.

### Suggested Improvements

In the light of these facts, I should like to recommend a few possible improvements.

First, I sincerely believe we have all the radio broadcasting stations this country can possibly support, and that additional facilities will necessitate the commercialization of stations to the exclusion of public service programs. With an increased number of stations, advertising rates must be decreased. With decreased advertising rates, more time must be sold in order to operate the station. With more sponsored time on the air, public service and sustaining programs must of necessity be reduced in number.

Second, action upon the applications of cleared channel stations for power increases up to 500 kw. should, in my opinion, be delayed until additional information has been made available. The survey conducted by you proves conclusively that these stations are now serving the rural listeners, and that additional power at this time is not essential. It is not expected that the signal strength provided city listeners be also available to rural listeners, any more than the rancher expects four or five deliveries of mail a day. As a matter of fact, he is satisfied with one. The additional investment necessary is not justified from the standpoint of service to the rural listener, but may be profitable and justifiable from the standpoint of monopolizing city and urban receiving sets in that their signal strength would be so very much greater than that of any local station. The fact that all full time, cleared channel stations are affiliated with the national chains makes additional power assignments to these stations at this time and under these circumstances unnecessary. National chain programs are heard satisfactorily in almost every part of the United States. The exceptions would likely not be benefitted by the granting of any of the pending applications. The question of the duplication of programs also becomes a subject of great importance. It seems entirely probable that the networks would, if granted 500 kw. at certain strategic locations, discontinue affiliated stations in that general vicinity, thus forcing more stations to depend upon local business and increasing local competition.



## Mileage Separation

Third, the mileage separation requirements of the Commission should be discontinued, and every case considered upon its merits, giving due consideration to all factors, including duplication of programs in certain areas, and also the economic problems involved. There can be no advantage to the public, to the industry, or to the Government in permitting existing or new stations to operate at a loss or to struggle for a bare existence because of inadequate assignments.

## Consolidations

Fourth, all part time stations should be urged to consolidate, to move to new locations where there are no existing stations, and population sufficient to support them, or be given an opportunity to become full time stations. I am aware that such changes cannot be initiated by the Commission, but applications for such changes should, in my opinion, be given preference over applications for new stations. The investment in equipment already having been made, such adjustments would be of benefit to the public, to the industry generally, and to the broadcaster specifically.

Fifth, all broadcasting licenses should be issued for a period of at least two years. This would materially help the morale of broadcasters and do much toward stabilizing the industry.

These things will aid substantially in improving service to the radio listener, in forestalling lopsided progress, in increasing the ability of broadcasters to render a public service in the highest sense of that word, and in providing a firmer foundation upon which to build even greater achievements than those which the radio industry has already contributed to contemporary civilization.

## CROSS-EXAMINATION OF LaFOUNT

Under cross-examination Mr. LaFount said that after having made a survey of many of the stations of the country he felt assured that half of the independent stations in the United States did not make a profit during the past year. Some of them have, he said, but this depended very much on location. He advocated that the Commission not grant new station applications but that it increase the power of present ones and allow consolidations of shared time stations instead. He believed that the Commission should go so far as not even to grant applications for new stations in cities where there are no stations at present. Under further cross-examination he said that there are a few cities in the United States today who can support a radio station where there is none.

## CANNOT SUPPORT TWO STATIONS

Mr. LaFount testified that in his opinion in a town with a population of 15,000 it would be impossible to support two broadcasting stations.

He stated that the two clear channel stations in the Fifth Zone cover that zone satisfactorily. He also advocated two-year licenses and said that if this were granted it would not freeze the situation. He asserted that the broadcasters of the country could do a much better job with a two-year license than a six-months license.

## JOHN SHEPARD, 3rd

John Shepard, 3rd, chairman of the Executive Committee of the National Association of Regional Broadcast Stations, opened the argument before the Commission on behalf of the Regional stations.

He said that his Association advocates supporting changes in the rules of the Commission so that they would permit the operation "of Regional Broadcast Stations with 5000 watts power at night, as well as day, and so as to permit the operation of more than one full time station on a clear channel."

He said that members of his group felt that they would be adversely and most seriously affected if stations should be authorized and regularly licensed to operate with 500 kilowatts.

Mr. Shepard said.

As Chairman of the Executive Committee of the National Association of Regional Broadcast Stations, and at the very outset of the presentation of evidence supporting the position of the Association, it is in order that the Commission be informed as to what the National Association of Regional Broadcast Stations is, how it came into being, what its purposes are, and what it has been doing.

## Discuss Regionals

At the convention of the National Association of Broadcasters held in Chicago last July, some of those who are responsible for

the management and operation of regional stations began to discuss informally what regional stations should do and what an organization of such stations could do in assisting the Commission in collecting data for this hearing. No attempt was made to organize the regional stations at that particular time, but some of them met in Chicago later and organized the National Association of Regional Broadcast Stations. Between the informal discussions during the NAB convention in Chicago and the time the Association was organized, numerous regional station licensees were talked to and their problems and ideas were all found to be generally the same. It was therefore relatively easy to determine at the time the Association was organized what the interests of regional stations were and to determine what general proposals this group of regional stations should make to you.

The Association has 81 members located in 34 states and has one or more members on 35 different frequencies out of 40 frequencies assigned to regional stations. Thus this Association is, in the fullest sense, truly representative.

## Stations' Interests

Having determined what all of the stations' general interests were and attempting to condense these into a few definite proposals as possible. It was unanimously determined that the Association should sponsor and present evidence supporting changes in the rules of the Commission so that such rules as amended would permit the operation of regional broadcast stations with 5 kw. power at night, as well as day, and so as to also permit the operation of more than one full time station on a clear channel. It was also definitely determined as the governing policy of the Association that it should and therefore would sponsor these changes in Commission rules for general application to regional broadcast stations. Your Division, in giving notice of this hearing and in inviting participation in it, made it clear that the information and data desired should go to general applicability of rules rather than attempt to produce evidence in support of relatively few stations or a small number of regional frequencies. The Association has tried sincerely to comply with this implied if not direct request of the Commission and has prepared the showing which it will make along these lines.

## Unanimous Opinion

The Association was unanimously of the opinion that regional stations, both as a group and as individuals, would be adversely and most severely affected if stations should be authorized and regularly licensed to operate with 500 kw. Believing in our own stations and being convinced that they are rendering an indispensable service to the American public, we were convinced that we would be negligent in our duty as individuals and as an Association, to both this Division and ourselves, if we did not show some of the facts as to how the regional stations would be so adversely affected by the regular operation of 500 kw. stations.

## Prepare Evidence

An executive committee of the Association was elected and authorized to engage assistance for the purpose of preparing the evidence and to present it to your Division. After the Executive Committee had studied the question of how best to present the evidence, it decided that such evidence should be presented, not alone as to the technical or engineering questions involved, but also as to the all-important social and economic questions and considerations which we believe are of primary importance and which we also believe must be the controlling factors in any final conclusion reached by this Commission as to what rules shall govern the future of American broadcasting.

The Association engaged Dr. Greenleaf Whittier Pickard to direct the technical studies and Paul D. P. Spearman to direct the other studies which we shall present for your consideration with the sincere hope that the facts and principles so presented will prove beneficial. Dr. Pickard has had the assistance of several able engineers and Mr. Spearman has had several assistants working in cooperation with him. It would have been impossible to prepare and present our evidence in any other way. To make possible the consumption of the smallest amount of your time, the technical studies and investigations will be presented by Dr. Pickard. The results of the remaining studies and investigations will be presented under the direction of Mr. Spearman.

## Peculiar Problems

The regional stations have their own peculiar problems and the interests of regional stations may conflict with the interests of



some other class of stations or some other station within a class, and if such conflicts should arise the only way the facts can be fairly and fully presented on behalf of regional stations is through an organization or association made up of such stations. The National Association of Broadcasters having a membership which is made up of every class of station cannot, of course, afford to, and the regional stations would neither ask nor expect it to take sides with the interests of any other class of station represented by membership in the National Association of Broadcasters.

### Conclusions

Our Association appreciates the action of your Division in affording the opportunity which this informal hearing does afford to lay our problems before you and to present the facts with respect to such problems. Every member of the Association is deeply grateful to your Commission and appreciates fully your desire and intention to study the important questions involved in the regulation of broadcast stations in this manner, and to get some of the practical viewpoints, as well as the theories to which you should, we believe, give most careful consideration.

Dr. Pickard will, as I have already stated, present the technical and engineering evidence on behalf of the National Association of Regional Broadcast Stations. He will be the first to appear on our behalf.

### DR. G. W. PICKARD

Dr. G. W. Pickard followed Mr. Shepard on the stand taking up the technical side of the regional station situation. He presented lantern slides by which he pointed out possible duplications on clear channels.

He took up three specific hypothetical cases of duplications on clear channels. One of these dealt with a proposed station at Seattle, Washington, on 760 kilocycles, the frequency of WJZ. The Seattle station he proposed would use a directional antenna and he contended that with its use WJZ would be given full protection.

He also took up a hypothetical case of a station at San Francisco using 1170 kilocycles which is the frequency of WCAU and other stations. In a third example he proposed a hypothetical station at Cincinnati on 150 kilocycles, that now used by KNX. In all of these cases Dr. Pickard contended that there could be duplication without serious interference.

### Open Space Coverage

Dr. G. W. Pickard said that 50 kilowatt stations could not cover the great wide open spaces and even if these were increased to 500 kilowatts he contended that there could not be complete daytime coverage of these places. He even went so far as to state that 5000 kilowatt stations could not give good daytime coverage.

### International Interference

Dr. Pickard then took up the international side of the use of 500 kilowatt stations. He spoke in this connection particularly of the interference range. He contended that a 500 kilowatt station would create interference well down into South America, into portions of Europe as far as Berlin, into Asia, Africa, and large portions of the Pacific Ocean. He spoke also of the reception in Europe of America's stations, mostly of 50 kilowatt power and located on the Coast. Dr. Pickard will continue his testimony on Friday morning.