

How Much Clean Up?

THE NEED FOR A CLEAN UP in radio broadcasting is now admitted on every hand. The final and conclusive evidence was the transfer of Chairman McNinch from the Federal Power Commission to the Federal Communications Commission for the specific purpose of effecting reform. The only remaining question is how far the clean up should go.

The editors of this bulletin, who think they performed a constructive service in emphasizing the need for a clean up, now feel the responsibility for a further effort to be constructive by suggesting some of the changes required if the reform of broadcasting is to be basic and lasting.

The problem facing those charged with the clean up may be stated very simply: Will changes in the administrative machinery of the Commission suffice or must there be changes in the theory as well as the practise of broadcasting regulation? The evidence seems to be conclusive that, while the so-called American system of broadcasting need not be destroyed some of the assumptions on which it rests must be altered.

The theory behind the present system of broadcasting has been stated as follows:

[1] The government shall license to private interests that number of stations which can make most effective technical use of the comparatively few air channels available for broadcasting.

[2] Station owners shall be allowed to create among themselves a system of commercial competition for advertising revenue. This private competition can be depended upon to keep them operating in the public interest.

[3] The public as the listening audience will determine the outcome of the competition by tuning its receiving sets to stations according to the excellence of their programs.

[4] Under such a system broadcasting will achieve a greater freedom and usefulness than is possible under more stringent government regulation.¹

The fallacy of this theory was pointed out at the same time. It is this. When the government licenses one station for 50,000 watts and a competitor for only 100 watts, it is doing more than facilitating a system of private commercial competition. It is determining the outcome of that competition. By favoring high-powered stations, it is encouraging station owners to seek favors from the Commission. Does not this open the way to corruption or at least to the charges of corruption in broadcasting which have been made by members of Congress?

Before permanent reform is possible, then, some way must be found to eliminate the fallacy of our present theory of broadcasting regulation or to develop a new theory. If the present theory is to be retained, some method must be found for equalizing the competition prescribed by it.

THE CHICAGO BOARD OF EDUCATION devised a unique program of education by radio during the recent poliomyelitis epidemic when the opening of the elementary schools in that city was postponed several weeks.

Seven radio stations donated time in fifteen minute periods thruout the day. Six newspapers carried a daily digest of each lesson to be broadcast, including directions, questions, and assignments for pupils. These digests served as texts in the absence of books.

Mathematics, English, science, and social studies for grades from 3B to 8A inclusive were the subjects chosen. Broadcasting began on Monday, September 13, at 7:15AM with a health and physical education program which was a daily feature. Lessons in social studies and science for the various grades were given at intervals thruout the day, the last period being from 6:45-7PM. On Tuesday lessons in English and mathematics were given. Wednesday's programs were the same as Monday's and the alternation continued thruout the week.

A committee of three was appointed in each subject to select material suitable for use over the radio, to plan the continuity of the lessons, and to be responsible for the broadcast. A committee of two principals was appointed to listen in to all broadcasts and to make suggestions for improvement.

Pupils were instructed to keep all of the work done in connection with the radio lessons and present it to their teachers when school opened. A committee in each major subject was appointed to work out a test to be given to the children at that time. The results of this test will determine the credit each child will receive for his work. These same committees made provision for make-up work for those children who did not have radios, or who were kept outside of Chicago during the epidemic.

The number of children listening to the radio lessons and using the newspaper texts has been estimated at 315,000.

The Board of Education is convinced that the plan was followed by both parents and children with earnestness and enthusiasm. Sixteen teachers, called in to supplement the staff at the central office, were unable to take care of all the calls received from parents who were distressed that they could not get a certain station on the radio and some child had missed a lesson, or because some speaker had given directions a little too fast and the child did not get them. A thousand questions were answered on the first day of broadcasting, and five extra teachers were added the next day.

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THE NATIONAL EDUCATION ASSOCIATION has completed arrangements with the Columbia Broadcasting System for a series of coast-to-coast current events broadcasts. The new programs, entitled "Exits and Entrances," will be broadcast Mondays from 2:30-3PM, EST, as a feature of the American School of the Air. They are intended especially for secondary school students of the social studies. In addition to the series over Columbia, the Association's Saturday morning program for teachers and Wednesday evening program for the general public will be continued over an NBC network.

A RECENT CONTROVERSY in Detroit over excessive commercial announcements during baseball broadcasts sponsored by Wheaties, involved radio stations, the client, newspapers, and listeners. It is expected that the result will be a noticeable limitation of advertising. According to *Variety*, "Most of the agency men and clients contacted have expressed themselves as frankly alarmed over the situation, declaring they never before had realized listeners' dangerous reaction to the 'blurb' system."

THE MOUNTAIN RADIO LISTENING CENTER SYSTEM of the University of Kentucky is described fully in an intensely interesting twelve-page illustrated booklet. Copies of the booklet may be secured without charge from Elmer G. Sulzer, director, publicity bureau, University of Kentucky, Lexington.

The difficulty in equalizing competition is a bit hard to explain. It grows out of a conflict between the technical and the economic purposes which broadcasting serves. Technically, unequal grants of power are necessary to serve different geographical areas of the nation. Fifty kilowatt stations are licensed to serve "rural and remote areas." Hundred watt stations are for service to local communities. Technically, therefore, the different classes of stations are not in competition.

Economically, they are in direct competition. They sell their "circulation" to advertisers. The advertisers buy service, not to listeners in remote areas where reception is at best uncertain, but to the audience within the good service areas immediately surrounding the stations. That is why commercial stations are located at or near centers of population.

Until last October the Commission had been issuing its licenses on the basis of technical considerations only. Then, at the reallocation hearings in October 1936, it took cognizance of the existence of economic and social as well as technical implications of broadcasting. It instructed Commander T. A. M. Craven, then chief engineer of the Commission and now one of its members, to prepare two reports, one dealing with the technical implications and a second dealing with the economic and social aspects of the problem of allocation.

The technical report has been rendered. It emphasizes the need for more rather than fewer classes of stations and actually paves the way for increases in inequalities between stations.

The economic and social report has not been submitted. It may never be prepared. However, the Commission has recognized at least that such problems exist. Ultimately it will have to come to grips with them. It will have to reconcile the economic and technical conflict if the present theory of broadcasting is to be preserved.

What are the possibilities of reconciliation? They seem to be excellent. There are certain conditions which must be met, however, and these should be given consideration before any statement of a solution for the problem is attempted.

The limitations on the number of available wavelengths and the facts about the technical operation of stations create certain realities to which all proposals must conform. In the nature of radio it is impossible to give high power to all stations. There must always be 100 watt stations or their approximation. On the other hand, there must also be high-powered stations to serve the rural population.

The problem, then, is not that of equalizing technical grants. It is rather that of ironing out the economic unfairness which results from the use of these facilities in advertising competition. What is necessary is to find a way of making high-powered stations compete only among themselves while the low-powered stations likewise are allowed to compete only against each other.

In one sense every station must compete for the attention of listeners with every other station in its locality. Listeners tend to favor the higher powered stations because they normally give better reception. Hence, unequal grants of power tend to make this competition unequal. Where a distinct difference in the types of program service is created, however, audience tastes will split listeners into groups large enough to give economic support to each of the several services. It is this psychological phenomenon which enables small daily or weekly newspapers to thrive in the delivery area of some of our great metropolitan papers.

A first step, then, is to see to it that the types of program service are carefully differentiated. There seems to be room for a national, a

regional, and a local service in most communities. Stations rendering these different types of service should lose all identity except that to which their service is dedicated. A national station should have no local identity, at least so far as program service is concerned. Regional and local stations should confine themselves likewise to special types of service.

There may be many ways in which this separation of functions can be achieved. Two possibilities will be discussed here. One has to do with the creation of superpower stations, each of which can serve the total area to which its service is dedicated. The other deals with the synchronization and simultaneous operation of a group of stations concerned with a single type of program service.

Experimental work is already being done with the superpower station. WLW at Cincinnati has been operating with a power of 500,000 watts for about two years. The expense of operating such a station is so great that it could never compete with a strictly local station. Its advertising rates have to be too high. Its programs are heard over too wide a range of territory to be confined to the type of service a local station ordinarily gives.

A clear channel survey conducted by the engineering section of the Federal Communications Commission indicated that WLW was the favorite station of rural listeners in thirteen states. Under favorable conditions it can be heard in almost any part of the United States. Engineers have proposed that a complete national coverage during nighttime hours might be provided by a single station such as WLW if it were centrally located and if "booster" stations were erected to reinforce the signal of the station in areas where reception was not clear.

Such an arrangement would never be entirely satisfactory. In the south, particularly during the summer months, reception would almost certainly be inferior. Conditions might develop in almost any part of the country under which reception would be poor. Nevertheless, it would provide a kind of national service which would present no economic dangers to regional and local stations.

Synchronization presents another and perhaps more promising possibility of differentiating between various types of service. This method of broadcasting has been frowned upon by engineers, altho they admit its technical validity. Therefore, it may be well to introduce some technical evidence as to the possibilities of synchronization.

In a release dealing with synchronization issued March 2, 1936, by the Communications Commission, appears the following paragraph:

Common frequency broadcasting [synchronization] is in successful commercial use in several countries. Thus, in Great Britain a network of a dozen or more stations is operated on the same frequency. In Germany there are two networks, one in the north and one in the south, each comprising several stations. The United States, altho in the forefront from the standpoint of technical development, has lagged behind in the commercial application of common frequency broadcasting. There are at present in operation in this country only three pairs of synchronized stations.

An exact report on American experience with synchronization is contained in another release, written by L. McC. Young, supervisor of synchronization, station WBBM, Chicago, and issued by the Commission March 9, 1936. The concluding paragraphs of the report are as follows:

The general results have far exceeded the predictions of the most optimistic technical experts concerned with the project. The total mail of the two stations [WBBM and KFAB] containing adverse criticism has been insignificant. In the investigation of these few cases none had any just basis for criticism against the

TO STUDY THE VALUE OF RADIO as an aid to classroom instruction, the University of Wisconsin will conduct during the next two years a special research project in school broadcasting.

The plan provides for a staff of radio specialists and educators, with facilities for experiments, demonstrations, school visits, and objective evaluation. Thru careful observations, tests, and measurements an attempt will be made to discover the place of radio in the school and to appraise its importance in classroom education.

The research project, financed by a special grant, is backed by the interest and support of leading educational agencies of the state. These include the State Department of Public Instruction, the Wisconsin Education Association, the State Board of Normal School Regents, and state broadcasting station WHA, in addition to various departments of the university.

Experimental broadcasts will be set up with definite objectives in harmony with those of classroom instruction. The evaluation will be in terms of the realization of those objectives. During the first half year the research project will be concerned mainly with preliminary studies, planning and preparation of experimental broadcasts, and setting up the machinery for evaluation.

Direct supervision of the research project is in the hands of an executive committee appointed by Dean E. B. Fred of the graduate school of the university, under whose general direction other university research projects are conducted. The work of experiment and research is being carried on by the following staff: Lester Ward Parker, radio education specialist; Lee Howard Mathews, research specialist; and Gordon Hubbel, script editor. Several graduate students are working as research assistants.

THE NATIONAL ASSOCIATION OF EDUCATIONAL BROADCASTERS held its annual convention in Urbana, Ill., September 13 and 14. Carl Menzer, director of station WSUI, State University of Iowa, was elected president for 1937-38, succeeding H. B. McCarty who has served as president during the past two years. Mr. Menzer will replace Mr. McCarty as the NAEB's representative on the National Committee on Education by Radio. Harold A. Engel, promotion manager of station WHA, University of Wisconsin, was elected vicepresident and W. I. Griffith, director of WOI, Iowa State College, treasurer. The new executive secretary is Frank Schooley of WILL, University of Illinois.

STATION WHAZ, Rensselaer Polytechnic Institute, Troy, N. Y., observed its fifteenth anniversary on the air Monday evening, September 13, coincident with the reopening of the Institute for its 113th collegiate year.

DR. LEVERING TYSON, former director of the National Advisory Council on Radio in Education, was inducted into the presidency of Muhlenberg College, Allentown, Pa., on October 2.

THE SECOND NATIONAL CONFERENCE ON EDUCATIONAL BROADCASTING, to be held in Chicago, Ill., November 29, 30, and December 1, will have as presiding officer at two of its sessions Dr. George F. Zook, president of the American Council on Education. Dr. Walter Dill Scott, president, Northwestern University, and Dr. Robert M. Hutchins, president, University of Chicago, will preside at the other two. Merrill Denison, writer; Dr. T. V. Smith, professor and state senator; Philip Barbour, South American specialist; Edwin W. Craig, director, radio station WSM; Dr. Levering Tyson, president, Muhlenberg College; and Dr. Lyman Bryson, Teachers College, Columbia University, have all agreed to speak. Section chairmen will be: Harry D. Gideonse, University of Chicago, aided by Sterling Fisher, Columbia Broadcasting System; William Dow Boutwell, director, educational radio project, U. S. Office of Education; Carlton Washburne, superintendent of schools, Winnetka, Ill.; Dr. Arthur G. Crane, president, University of Wyoming, and chairman, National Committee on Education by Radio; and H. M. Buckley, assistant superintendent of schools, Cleveland, Ohio.

THE EDUCATIONAL BROADCASTING SECTION of the World Federation of Education Associations meeting held in Tokyo, Japan, August 2-7, 1937, was attended by two or three hundred interested teachers, representing many different countries. Harry A. Carpenter, a specialist in science connected with the Rochester, N. Y., public schools, was America's representative on the program of the broadcasting section. His topic was "Curriculum Teaching in Science." On August 8 Mr. Carpenter broadcast to America over station JOAK a summary of the program of the Educational Broadcasting Section. His talk from the Japanese station was rebroadcast in this country by NBC.

CLARENCE E. DAMMON, director, radio station WBAA, Purdue University, Lafayette, Ind., is teaching a beginning class in the fundamentals of broadcasting and an advanced class in program production at the Indiana Extension Center in Fort Wayne. The class is using the facilities of station WOWO. There is also a class in radio technic at the Indiana Extension Center in East Chicago.

LISTEN AND LEARN, a 231 page book by Frank Ernest Hill, was published September 17 by the American Association for Adult Education, 60 East Forty-second Street, New York, N. Y. Copies are on sale at \$1.25.

POPULAR PSYCHOLOGY and club program planning are two new study group broadcasts scheduled for the fall series of women's programs over KOAC, the state-owned station in Corvallis, Oregon.

synchronous operation. For the past thirteen months I have spent the major portion of my time observing the operation of these stations. I have traveled over 25,000 miles in a '34 Chevrolet Coach which has been equipped as a field car with a Field Intensity Measuring Set, an Esterline Angus Recording Meter, a high fidelity Philco 800 auto radio receiver, and a standard high quality Philco 18 receiver. Daytime field strength measurements and fading records at night of synchronous operation and of WBBM alone have been made in seventy towns and cities in the area between Columbus, Ohio, and Denver, Colorado, Duluth, Minnesota, and Tulsa, Oklahoma. During July of 1934, Iowa was combed in search of the expected mush area. Continuous observation, using the high fidelity auto receiver, was made in the field car, travelling over 1400 miles during the night periods of synchronization and common programs. No mush area was found. Very little fading to poor quality was noticed. However, during many of the observations, several entire fifteen minute periods would remain without appreciable fading dips, while one or both of the individual station identification announcements at the intervening breaks would show fading.

This fact, itself, indicates that in the middle area between the stations the service has been materially improved. Other observations show that the service areas of both stations have been increased.

The details of how synchronization might be applied on a nationwide scale are too technical for consideration here. Competent engineers have indicated that it can be done. While it might involve a considerable reallocation of facilities, it would also differentiate national programs so completely as largely to eliminate the economic unsoundness of the American system of broadcasting as it exists at present.

If synchronization were to be used on chain programs, it would mean that each network would be confined to three or four channels instead of the dozen or more channels used today. This might open the way to an increase in the number of national services or to an amplification of the present use of channels in regional and local service. It would probably result in the ownership of all the synchronized stations on any one chain by a single corporation. It would also result in a complete national coverage for all programs, non-commercial as well as commercial.

Synchronization might be used not only for national service but also for regional purposes. Single superpower stations might also serve regions. This latter alternative would seem particularly appropriate in areas where a single state had a particular public service which it chose to render by means of its own publicly-owned station. Clearly such a station, supported by public funds, would be assumed to be more in the public interest than any commercial station seeking the same facilities. Obviously, the power of such a station should be great enough to serve all the people who, as taxpayers, would be contributing to its support.

Local stations would remain much as at present, each with low power to serve a given locality. There might well be an increase in the number of these stations. They would have to depend for their economic survival on the highly individualized service they could render to their community.

So much for the reallocation proposal. Now for some precaution as to the way in which it should be used. If applied immediately and arbitrarily it would almost certainly throw broadcasting back into the chaos of its early days and deprive the listeners of the present program service which for many people is entirely satisfactory.

Many problems are involved. There must be an adjustment of the holdings of such stations as may be absorbed in a synchronous system, to prevent loss on an investment presumably incurred in good faith. There must be careful study of the social and economic implications of the change. While giving up one system which is unsound, we must take every precaution against allowing new unsoundness to develop. This clean up may well be permanent and it must have foundations worthy of permanence.