

NAEB-NEWSLETTER

Office of Executive Secretary
Urbana, Illinois
January 1, 1940

HAPPY NEW YEAR

May the New Year bring you happiness and an opportunity to expand and improve your service to your fellow men through education by radio, exemplified in the institution and station you serve.

How are you going to improve your programs in 1940?

What are you going to do about frequency modulation?

How much are you going to help your secretary with information?

How are you going "to reawaken the sleeping loyalty" of your listeners?

How can NAEB better serve you?

FCC TO INVESTIGATE AURAL BROADCASTING ON HIGH FREQUENCIES

In view of the growing interest in frequency modulation and filing of applications to begin regular broadcast service as distinguished from experimental service on frequencies above 25,000 kilocycles, the Federal Communications Commission has announced that it will inquire fully into the possibilities of this system of modulation as well as amplitude modulation for aural broadcasting. Accordingly, an informal engineering hearing will be held before the full Commission beginning at 10 a.m. February 29, 1940.

Pending the outcome of this hearing, it was decided to grant the following classes of applications:

(a) Applications for permission to carry out programs of fundamental research not authorized in the past and which show satisfactory promise of being able to contribute substantially toward the development of aural broadcasting service, and

(b) Applications filed by existing licensees to experiment with aural broadcasting on frequencies above 25,000 kilocycles, provided the request to operate additional stations involves a

program of experimentation directly related to the existing station.

About 20 applications are pending action by the Commission for new stations desiring to use frequency modulation. There are now 34 amplitude modulated stations and 20 frequency modulated stations authorized by the Commission.

Before a permanent policy can be established with respect to either or both systems of modulation on frequencies above 25,000 kilocycles for regular broadcasting service, studies and investigations must be made regarding the relative values of the two systems, the patent situation, the frequency needs of all radio services, and whether amplitude or frequency modulation, or both systems, should be recognized for other services as well as broadcasting. It is also necessary to consider the possible future effect that broadcasting on ultra high frequencies may ultimately have upon standard broadcasting in the band 550 to 1600 kilocycles.

The frequency bands above approximately 25,000 kilocycles are some times referred to as "very high frequencies", "ultra high frequencies", or "ultra short waves". These frequencies possess relatively short distance characteristics as compared with the lower frequency bands. The signals are subject to rather wide diurnal and seasonal variations in signal strength at distances beyond the horizon; therefore, as a practical matter, these frequencies may be said to be useful for broadcast service up to about 100 miles only.

Major E. H. Armstrong, professor of electrical engineering at Columbia University, appeared as a witness in behalf of frequency modulation at the Federal Communications Commission engineering hearing in June, 1936. On the basis of testimony of experts who testified at this hearing, and after studies had been made jointly by the Commission's Engineering Department and the Interdepartment Radio Advisory Committee, the Commission and the President adopted permanent allocations above 25,000 kilocycles for the various government and non-government radio services.

Amplitude modulation has long been used as the standard system for transmitting speech and music by radio. It is the only system of modulation which is used by the existing services operating on conventional frequencies, i.e., below 25,000 kilocycles.

The claimed chief advantages of the two methods are set forth briefly as follows:

Amplitude Modulation

1. Amplitude modulation utilizes a much narrower band of frequencies, i.e., about one-fifth of the frequency band required for

wide band frequency modulated signals of equal fidelity.

2. Amplitude modulation may be used on all frequencies throughout the radio spectrum, whereas frequency modulation has proven useful only in the very high frequency bands.

3. Amplitude modulation is the only system which has been used successfully for television on the frequencies allocated by the Commission for television service.

Frequency Modulation

1. Frequency modulation possesses characteristics whereby it is possible to reduce the effects of all kinds of disturbances including atmospheric static, electrical noises, and background signal interference.

2. A frequency modulated broadcast station employing low power will provide greater service than a similar station using amplitude modulation. However, if the power of the two stations is substantially increased the percentage increase in service area of the frequency modulated signal will be materially reduced.

3. A frequency modulated receiver will accept only the strongest signal or noise as the case may be when the ratio of the desired to undesired signal strength is approximately 2 to 1. In the case of amplitude modulation, the ratio must be at least 20 to 1 for good broadcast service. Consequently, it is possible to operate frequency modulated stations at relatively close geographical locations without interference.

4. Frequency modulation has definite advantages over amplitude modulation in operating the low power services such as forestry, police, aircraft, etc. In such cases, each system is under the control of one licensee who can plan for the purchase, installation and operation of the entire transmitting and receiving system.

Shouldn't NAEB be represented at that meeting? What do you think? Who will volunteer? Should we have legal representation?

KWSC ON THE MARCH

Here's news from KWSC, State College of Washington, Pullman, Washington. M. Reid White, Production Director and NAEB Vice-President writes that on December 5, KWSC was granted modification of license to increase night power from one KW to five KW. In other words, we now have five thousand watts power night and day.

Our bulletin for the second semester, copies of which will be sent you as soon as they come off the press, outlines sixteen School of the Air programs for the second semester. Although our isolated situation does not permit us to brag about huge numbers of enrollees as you blessed middle westerners can, we have increased our enrollment approximately three hundred percent over last year, which is gratifying to us.

Programs which will be continued from the first semester are: American Wildlife, High School Science, What's News, High School Home Economics, Land of Make-Believe, Let's Sing, Mr. Geography, **The Drama of American History, Music Appreciation, and Plays in Miniature.** New Offerings include one vocational guidance program, one panoramic review of American literature, and "our state", which is self-explanatory.

In addition to these regular broadcasts to the classroom, there is evidenced a growth of interest in the station by various departments of the college. For instance the Speech Department is responsible for a half-hour roundtable once a week, as is the Department of Sociology and Political Science. The Graduate School of Social Work presents a weekly drama under the general heading, "The Newest Frontier of Human Knowledge". The School of Religion offers a half-hour weekly "History of Religion", and the English Department gives three weekly programs.

One new program which is not being publicized in the School of the Air bulletin is a Smith-Hughes agricultural series. As in several previous school programs, this is being produced experimentally for one semester before being offered to all of the schools.

We have a set of sixteen scripts on high school etiquette called "Bob and Mom", dealing with a series of situations such as must be met by the average high school student. Most of these scripts have worked out very well. If any members of the N.A.E.B. would like to read a couple of these with possible production in mind, we should be glad to furnish them. If, after perusal, the entire series is desired, it will be available. Of course, we're as poor as the proverbial church mouse, so the cost of mimeographing and mailing would have to be taken care of at the other end of the line. Incidentally, this offer holds for any of our programs in which anyone might be interested. Any similar kind offers?

M. Reid White

OKLAHOMA ROUNDTABLE ON STATE NETWORK

The University of Oklahoma roundtable, a discussion on timely events by faculty members, went on the air in December over the Oklahoma network originating from the studios of WNAD in the Union Tower on the University campus.

This program which was conducted throughout last year over WNAD became so popular that it was placed on the network over seven stations reaching every vicinity of Oklahoma. Henderson Leake, production manager of the University station, announces all roundtable broadcasts.

"ADVENTURES IN MUSIC" ON WNYC

Striking off the beaten path away from both symphony and swing, WNYC blazes new trails by exploring the musically exotic and unique with "Adventures in Music", a series devoted to the native folk music of Bali, Trinidad, China, and other colorful ports of call. (Thursday, 4:30-5:00 P.M.)

The program is intended as a kind of musical tour of the world, designed to emphasize unusual types of music and to familiarize listeners with musical concepts and patterns other than the conventional forms of the theatre and concert hall.

The Voodoo chants of Brazil, the curiously pleasant bell music of Bali, the throbbing rhythms of Hindu dance music, the quaint rhumba ballads of West Indian Calypso, the ancient folk epics of China, the primitive drum "language" music of Liberia----these will be some of the features of "Adventures in Music."

Noted musicologists, each a major authority in his field, will serve as commentators for the programs. Their commentary will be illustrated by various specialists in native folk melodies, and by rare recordings borrowed from private collections.

Colin McPhee, an American composer, who recently spent four years studying music in Bali, launches "Adventures in Music" on January fourth with a session on the music of that glamorous country. While in Bali, McPhee became friends with the leading musicians and dances of the island and even learned how to play some of the native instruments himself.

NAEB NEWS LETTER.....Jan. 1, 1940.....page 6

"The World of the Folk Song" is the title of the January 11th program which presents Professor Roy Mitchell of New York University and his unique vocal group "The Consort". They collect and sing ballads of weavers, tailors, plowmen, waggoners, and other folk songs that have been handed down from generation to generation only by word of mouth.

Other broadcasts will be conducted by Sarat Lahiri, noted as a composer, singer, and teacher of Hindu Music; A. W. Binder, Professor of Liturgical Music at the Jewish Institute of Religion and an authority on Hebrew synagogue and folk music; Elsie Houston, singer of Brazilian and other South American Songs; Dr. Wei, Professor of Music at Shanghai University, recognized as the world's foremost performer of ancient Chinese instruments.

NAEB MESSAGE TO ALL STATIONS

In a letter to all stations on December 7th, Ed Kirby, director of Public Relations for the National Association of Broadcasters, has some comments worthy of special note. The first few paragraphs are produced here;

THE RADIO INDUSTRY'S NEXT MAJOR SELLING JOB

The radio industry has sold millions of people millions of things. And, despite rumors to the contrary, it has sold itself to millions of listeners, even though the majority of listeners perhaps don't know it!

After all, people are people, and think mostly in terms of favorite radio personalities and favorite programs when they think of radio. They do not think in terms of the American System of Broadcasting which makes it possible for them to hear these programs on schedule, around the clock, day after day.

What radio needs to do, then, is to re-awaken the sleeping loyalty of listeners, for American radio is going through one of its most trying periods!

There is, at the moment, no need for undue alarm. But for a variety of reasons, there does exist an urgent need for the widest possible understanding of radio by the greatest number of listeners.

Scanned from the National Association of Educational Broadcasters Records
at the Wisconsin Historical Society as part of
"Unlocking the Airwaves: Revitalizing an Early Public and Educational Radio Collection."



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