

RADIO

"Standing Room Only" Sign Out for Radio Wavelengths

The Ultra-Short Band Now Being Considered For Addition to Practical Spectrum is Already Crowded

THE "STANDING room only" sign is already out for the ultra-short radio wavelengths which the Federal Communications Commission is now considering for addition to the practical radio spectrum, it was revealed by T. A. M. Craven, chief engineer of the Commission. Mr. Craven was guest speaker at the First National Conference on Educational Broadcasting.

Present practical usefulness of the radio goes down to the short waves with a frequency of 30,000 kilocycles (10 meters), he pointed out. Already under consideration and due for use very soon is the radio spectrum band from 30,000 kc to 200,000 kc, or to one and a half meter waves.

"At first glance," declared Mr. Craven, "this seems to be a tremendous increase over the present 30,000 kc. However, again we find distinct limitations because of the increasing demands and because of new developments."

New Uses

Acceptable television, he pointed out, will need over half of the now untapped radio frequencies. Blind landing systems for airplanes, with their great increase in aerial safety, would use these wavelengths. Facsimile transmission by radio would likewise require this radio band. Finally there is the growing use of light-weight portable transmitters in the police and forestry services, which require the use of these new short waves. At a recent hearing of the Communications Commission, he added, the preliminary estimate of the radio needs of the Government services alone was such that one-half of the newly developed portion of the radio spectrum would be required.

Speaking with Mr. Craven on the program were Dr. C. B. Jolliffe, former chief engineer of the Commission and now with the Radio Corporation of America, and Dr. Alfred N. Goldsmith, well-known radio consulting engineer of New York City.

All three men, without stating so in so many words, pointed out that the hope of some educators to have 15,000 stations serving 127,000 school districts

was not likely to be fulfilled. They emphasized that every time a new radio band is made available there seems to be room for everybody who wishes to operate a radio transmitter; but that the crowding ever becomes greater on the radio waves.

\$1,000,000 a Year

A million dollars a year is being spent by business executives to find out how many people listen to their radio broadcasts. But still they do not know anything about the extent to which their listeners are really paying attention to the program, Dr. Henry C. Link, of the Psychological Corporation, New York, told a discussion group at the Conference.

Sponsors of educational programs also have a need to study their audiences, Dr. Link told his colleagues. Even the rough measures now obtained by the sponsors of commercial programs of the numbers listening in are of value in planning programs to meet the interests of listeners. He told of a survey made by means of personal interviews in farm homes, rural town homes and cities.

"The audiences found for the educational programs at these centers were pitifully small in comparison with the audiences for commercial or sustaining programs," he said, "even when the relative power of the stations is borne in mind. On the other hand, an amazingly large number of commercial programs were described, by many of these people, as being programs of general educational value."

Mere Repetition Won't Teach

Mere repetition may not deserve the faith that radio advertisers have in it as a means for impressing audiences, Prof. Edward S. Robinson, of Yale University, told his listeners at another session of the Conference.

The discoveries of psychologists have great importance to successful educational broadcasting, he pointed out. The matter of repetition he cited as an example.

"Rare is the occasion upon which a new idea is grasped from a single presentation," he said. "Yet the ideal of educational broadcasting is not to be gained from the often fatiguing and annoying repetition in which the commercial advertiser has such faith. The results obtained from many studies of learning indicate that the optimal repetition varies with the material presented, with the audience, and with many other factors."

Arguments over whether the radio is as effective as the printed word or some other means of communication are pointless, Prof. Robinson indicated. The radio is being used and will continue to be whether or not it is as effective as some other method of communication, he said. The psychologist can aid in the improvement of broadcasting technique.

Science News Letter, December 19, 1936

PALEONTOLOGY

30,000,000-Year-Old Fish Brought Back From Alaska

FOSSILS of freshwater fish, found abundantly in Tertiary deposits in Alaska, have been brought back by an expedition headed by Dr. Erich Maren Schlaikjer of Brooklyn College, to be classified and studied at the American Museum of Natural History in New York. The formation where they were found is about 30 million years old.

Science News Letter, December 19, 1936

PHYSIOLOGY

Artificial Ear-Drums Aid Hard-of-Hearing

ARTIFICIAL ear-drums, very simply made out of a paraffin-impregnated fabric, have been devised by a Belgian scientist, Dr. J. P. Delstanche, for the aid of hard-of-hearing persons.

Science News Letter, December 19, 1936

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