

SCIENCE NEWS

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CONFERENCE ON RADIO WAVEBANDS

THERE is need for a world conference at an early date after the war to discuss the allocation of radio wavebands to various types of communications, such as television, FM, radar devices, standard broadcast and miscellaneous radio services, according to Commissioner E. K. Jett, of the Federal Communications Commission.

He pointed out that "Progress in the field of communications has been greatly accelerated within the last two-and-a-half years and unless a conference is called soon after the war to determine just what portions of the radio spectrum will be set aside for the various types of communication, we may have years of confusion among nations before the frequency allocations can be straightened out. Radio manufacturers are ready to produce equipment for the operation of a variety of radio services, including FM, television and peacetime radar, as soon as materials and manpower become available, and we must be able to tell them what frequencies will be used internationally for these various services, or else they will proceed under present standards to produce sets which would not incorporate the latest improvements resulting from the advancement of radio during the war."

To illustrate his point, Commissioner Jett showed that if, for example, Great Britain were to set aside a certain section of the radio spectrum for the use of maritime radar anti-collision devices, and the United States were to set aside the same section for television, a British boat entering New York harbor on a foggy night, and using the radar detector at British frequencies to prevent collision, would disrupt television reception in New York, and the television would interfere with the effectiveness of the radar.

Without a mutual agreement between nations on the question of waveband allotment the vast expansion of air travel and shipping to all parts of the world would be impossible. All nations must join in a treaty, agreeing to set aside certain sections of the radio spectrum for aeronautical, shipping and international public services, to mention only a few of the various types of services to be provided for.

Commissioner Jett stated that plans are already under way for an inter-American radio conference to be held in Rio de Janeiro, possibly in 1945, to discuss and coordinate plans for allocating the wavebands as far as the North, Central and South American countries are concerned. Originally it was decided to hold this conference last year. However, due to the rapidly changing picture resulting from wartime research and development it was decided that the conference should be postponed until a later date.

The State Department, in an effort to prepare the radio industry in this country for the big international postwar radio conference, has compiled a statement of proposals for frequency allocation, and is now in the process of distributing it to selected organizations in the radio industry. This report, known as the IRAC (Interdepartmental Radio Advisory Committee) proposals, is the

result of many months of careful analysis of what frequencies are best suited for individual services.

Predicting an era of transitional broadcasting during which a large number of programs broadcast on the standard band will also be broadcast on FM, he stated that eventually the public would buy enough FM sets to support FM independently of standard band stations. This does not mean that FM will supplant all standard band stations, as it is believed that the higher powered stations in the standard band will provide a primary service particularly to rural areas for many years to come.

Speaking of some developments which will play an important part in the peacetime years, Commissioner Jett said, "Engineers know that the principles of radar will be applied to many peacetime systems to enhance safety of life and property; for example, anti-collision devices which may be carried upon airplanes and ships. In addition it will be used in connection with the operation of many industrial devices both for safety and to speed up production. Fortunately, the industry, represented by the Radio Technical Planning Board, has been studying these postwar problems for more than a year and will submit recommendations to the government at an early date."—ROBERT N. FARR.

ITEMS

REINDEER herds in Alaska are dwindling, and Army officers are getting worried about it. *The Army and Navy Register* states that the count diminished from 500,000 in 1932 to about 250,000 in 1939, and there has been a further drop since, to an estimated total of only about 169,700 now. Wolves have been attacking the animals, which are at present inadequately protected because of lack of both appropriations and trained herds-men, and use of fighting planes to control the predators is under consideration. Reindeer constitute a military as well as an economic asset to Alaska. Their meat could insure against a shortage in proteins, and their hides make excellent clothing and sleeping bags for Arctic use. The herds feed mainly on the tough vegetation of desolate tundra stretches that were completely useless before their introduction from Asia several decades ago. There is a government-owned herd of 40,000 head, now very closely guarded, from which it is hoped replacements may eventually come for the scattered privately-owned herds now suffering from progressive depletion.

THE tuberculosis death rate declined slightly throughout the nation during 1943, the National Tuberculosis Association here has announced on the basis of provisional reports from state health departments. The total number of tuberculosis deaths for the year were 56,178 with 118,042 new cases reported. The 1943 death rate was 41.9 per 100,000 population, compared with 43.1 in 1942. An increase in deaths generally was noted, however, in reports from highly industrial states. Despite the decrease for the nation as a whole, the downward trend in tuberculosis deaths has slowed, according to Dr. Kendall Emerson, managing director of the association.