

RADIO

Radio Space Allocated

Final decision reached by the FCC on places for standard broadcasting, television, airplane radio, and police. FM is still unsettled.

► AFTER SEVERAL months of deliberation the Federal Communications Commission has finally made up its mind how it will allocate space in the radio spectrum to standard broadcasting, television, airplane radio, police and other services. The stumbling-block in making final the FCC proposals published last January were the long-drawn-out objections registered by owners and operators of Frequency Modulation (FM) radio stations. FM radio is staticless broadcasting.

No final decision has yet been reached by the FCC regarding the place in the radio spectrum that will finally be set aside for FM or for the space below 25 megacycles. Three possible sections of the waveband are under consideration, and during the coming summer months, scientists of the FCC will experiment with FM broadcasting in these three parts of the spectrum to determine which of the three is best for FM radio. These experiments will be conducted at the field offices of the FCC, from which FM broadcasts will originate. Cellulose tape recording equipment that can record sound for several hours without stopping will be placed at various spots in the area around each FM station. Continuous recordings will be made day and night. From these recordings, engineers will be able to find out just which section of the spectrum permits FM broadcasting with the least interference.

The spectrum is still congested, although every service that asked for space in the airplanes got at least a part of what it asked for. In making the decisions, the commissioners engaged in a give-and-take study, giving more space to services which proved by their testimony that they needed more frequencies in order to carry out their operations in the public interest, and to new services that promise to extend the use of radio to the benefit of more people.

Probably the most important new radio service is the Citizens Radiocommunication Service, which will make it possible for every U. S. citizen to have his own broadcasting station in the form of walkie-talkie or handie-talkie equip-

ment. Regulations covering licensing and operation of the equipment will be simple and easy to comply with. The only stipulation made by the FCC is that no charge may be made for messages carried over the air in this portion of the spectrum.

Other new services that have heretofore never been licensed are radio for railroads; rural radio communication for farmers that will permit them to reach telephone communication lines and make use of telephone service even though they have no telephones; and mobile radio for buses and cross-country trucks.

The allocations extend to 30,000,000 kilocycles in the spectrum, farther than the FCC has ever before licensed. This is by no means the upper limit of the radio spectrum, and in the future the

FCC may allocate channels to services beyond that super high frequency range.

Science News Letter, June 2, 1945

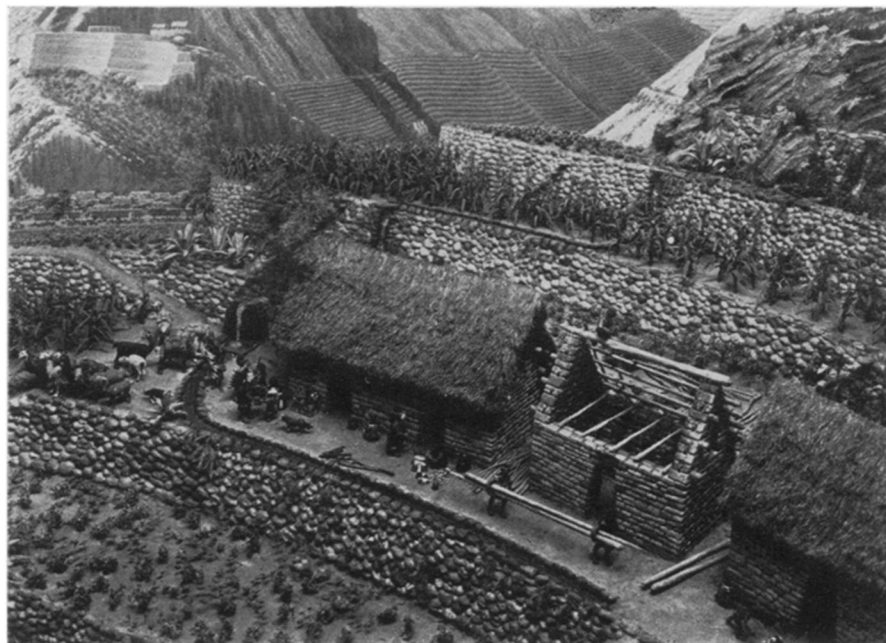
CHEMISTRY

Training of Chemists at Standstill Due to War

► WAR HAS all but stopped basic, academic research in chemistry and has stopped the training of new research chemists and chemical engineers, Dr. Roger Adams, leading organic chemist, head of the University of Illinois chemistry department and head of chemical work of the U. S. Office of Scientific Research and Development, charged in a radio talk.

"Basic scientific research finds new truths, and supplies new material upon which much of the industrial progress of the future depends," Dr. Adams said. "Years will be required before basic research activity again reaches its prewar level.

"The war also has stopped the training of new research chemists, and chemical engineers. Thousands of academic and industrial chemists have been drafted



INCA VILLAGE—A miniature model of an Inca village, as it appeared about A.D. 1450 in the Urubamba Valley in southern Peru, has been completed at the Chicago Natural History Museum, and added to the exhibits. The model is based upon observations of ruins made by Donald Collier, curator of South American ethnology and archaeology, during expeditions to South America. The scene represented is in a mountain valley at an elevation of 9,000 feet, near Cuzco, which was the capital of the Inca empire. The village represented is still inhabited by modern descendants of the ancient Incas.