



"HAM" AT HOME—Member of the American Radio Relay League, William J. Halligan, W9WZE, Chicago, in this de luxe studio chats with friends around the world.

calls for food and medical aid saved many isolated areas from worse tragedy.

To cope with emergencies in any part of the United States and its possessions, the amateurs now maintain an Emergency Corps of selected hams who will be able to keep up a system of intercommunication wherever the need may arise. Organized by the American Radio Relay League, the Corps is made up of amateurs with portable equipment independent of local power lines who can take over when other means of communication are destroyed.

The national organization of the hams, the American Radio Relay League, was founded in 1914 through the inspiration of a distinguished radio amateur of his day. The late Hiram Percy Maxim, famed inventor, scientist and author, saw the need for an organized relay system among the hams to facilitate messages being sent long distances. At that time, limited ranges of shortwave transmission required a relay system. Today, when hams can send messages around the world, elaborate relay organizations are the nation's "communication insurance" in emergencies.

Pearl Harbor abruptly stopped amateur radio operations. Asked to go off the air the evening of December 7, 1941, the hams quickly relayed their last pre-war message and ceased operating for

the duration of the war. During the war the government used shortwave stations on the amateur bands.

The war, fought in the laboratory and at the control panels as well as behind the guns, brought many thousands of radio amateurs into the Armed Forces and war industry. These were some of the nation's best trained personnel to cope with the problems of wartime radio and electronics—trained by building and operating their own stations.

The Army and Navy eagerly sought the services of hams, finding that these men, accustomed to operating a radio station with a coil of wire, a pair of pliers and their own ingenuity, were well suited to keep sensitive equipment such as radar operating.

Now back from the war, amateur radio finds some of its prewar bands still being used by the Army and Navy, but even the "DX Hound" finds regulations limiting international communicating by amateurs have been lifted.

Returning, too, and eager to enter the fascinating and skilled pastime of the hams, are many thousands of men and women whom the Army and Navy have acquainted with radio and electronics during the war.

Postwar amateur radio has already entered a field opened by war-time discoveries. Amateurs are now invading the

super-high frequencies of radar's microwaves. Limited in distance, microwave beams are narrower than ordinary waves and permit use of smaller antennas and directional equipment not practical at lower frequencies. This holds promises of more private, direct beam communications using midjet antennas.

In first experiments with the new frequencies, amateurs talked to each other across 31 miles on a frequency of 5,300 megacycles using an antenna less than one-half inch long.

Stimulated interest in radio, plus the war-time discoveries, promise boom years for amateur radio. Meanwhile, President Bailey of the American Radio Relay League looks to the future when hams will be operating their own television stations.

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If you want to know how to become a radio ham or build an easily-constructed receiver, send two 3-cent stamps to SCIENCE NEWS LETTER, 1719 N St., NW, Washington 6, D. C., and ask for Bulletin R-10.

TECHNOLOGY

Many Opportunities For Technical Men

➤ THOUSANDS of opportunities for technical men will exist during the next years in American industry, E. C. Wright of the National Tube Company told a meeting of the American Institute of Mining and Metallurgical Engineers in Chicago. The demand for metallurgical engineers will continue to grow, he said, and emphasized that students in preparation for this profession need thorough training in such fundamental sciences as physics, physical chemistry, thermodynamics and mathematics.

He based his statements on experience in steel metallurgy in training graduates from various types of college courses in the plants of the company he represents. He advocated a clear-cut college-industrial training program covering at least 10 years for recruiting undergraduates and graduate students each year, standard apprenticeship courses, with adequate pay rates and working hours and a training program best fitting each industry.

Cooperative arrangements should be made with selected colleges, he said, to insure that apprentices be obtained from a number of different schools, and every effort should be made to mobilize undergraduates for summer and vacation work as early as possible in their college courses. By these means, he predicted, the steel industry will build up a reservoir of metallurgical engineering talent.

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