

# Short Wave Programs for Waldorf Guests

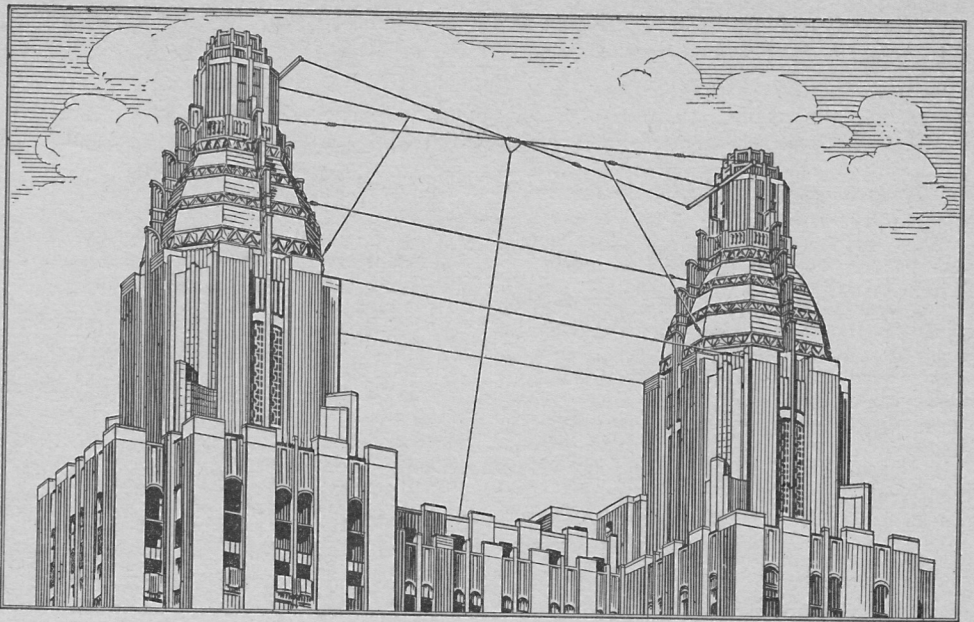
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SINCE its opening some four years ago, the new Waldorf-Astoria Hotel has provided radio broadcast programs for its guests in over two thousand rooms. A horizontal antenna, suspended between towers forty-seven stories above the street, is connected to high-quality Western Electric receivers on the sixth floor, from which point the programs are distributed over a building-wide network developed by the Laboratories. Since the Waldorf enjoys an international reputation, and attracts many foreign guests, the management felt it would be desirable to make available to them radio programs broadcast on short waves from their own countries, in addition to our local broadcasts. Moreover, the increasing general interest in short-wave reception would make the availability of short-wave programs an attractive feature for American patrons. To receive such programs the Waldorf has now installed a Western Electric short-wave receiver which can be connected to any of the circuits of the present distributing system.

Most of the short-wave programs are broadcast at frequencies from 6 to 25 megacycles, corresponding to wave lengths from fifty down to twelve meters, and it was decided that the Western Electric 13A Radio Receiver would provide the best quality of signal and most general satisfaction over this range. This receiver was designed for various applications in the short-wave field, including aviation, point-to-point, and ship-to-shore. It was first applied to the Caribbean radio telephone project, as already described in our September, 1933 issue, but has since been widely used both at home and abroad. As shown in Figure 1, all the apparatus is housed in a seven-foot cabinet about twenty inches wide. The cabinet itself forms the back, sides, and top for a number of units, each of which has its own function and carries its own front panel. The scope of the receiver may be broadened, after purchase, by the addition of other units as desired.

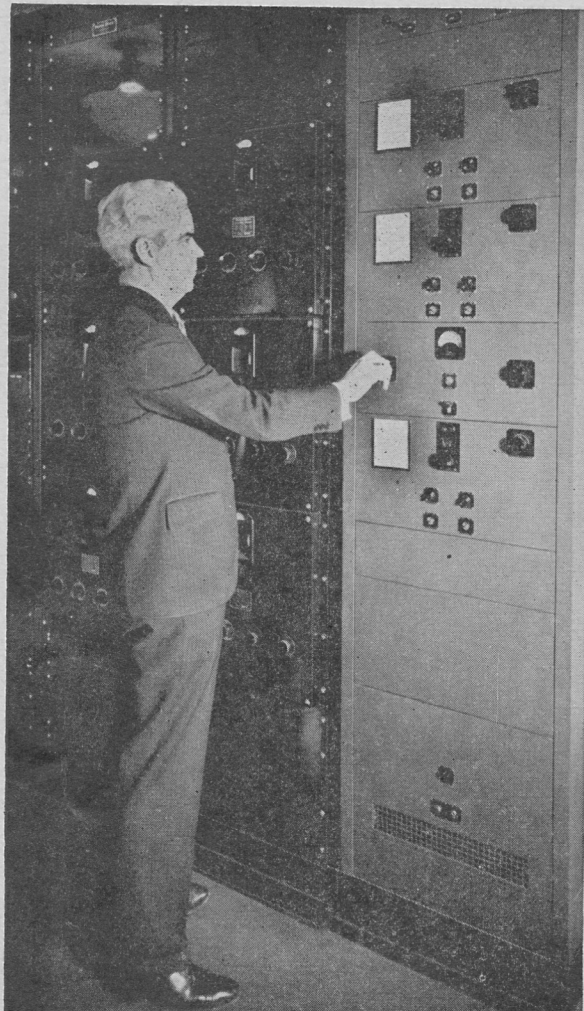
Units available are three radio-frequency amplifiers, each with a different frequency range, an intermediate frequency amplifier, and an audio-frequency amplifier and power supply unit, as well as antenna tuning units, a patching panel, and an oscillator panel, which allows the set to be used for receiving telegraph signals. There is also available a panel, used chiefly for point-to-point communication, which may be employed to disable the receiver either when no carrier is being received or when the transmitter associated with the receiver is on the air. Of these various panels available, the installation at the Waldorf includes only the audio and intermediate-frequency amplifiers and the three radio-frequency amplifiers, which



are sufficient for broadcast reception over the frequency range from 2.2 to 25 megacycles. Such an arrangement will permit them to receive not only all the short-wave broadcasts, but many police, aviation, and amateur radio-telephone channels as well.

The use of three separate radio-fre-

quency amplifiers makes it much easier to tune in on a given station promptly. Depending on the time of day, a broadcast station may employ any of several frequencies. If it were desired to get a station which used either 6, 9, or 15 megacycles, for example, one amplifier could be tuned to 6 megacycles, one to 9,



*Fig. 1—H. R. Martin, Superintendent of Communication at the Waldorf, tunes the short-wave receiving unit*