

A TELE-WAVE SKIPS ATLANTIC

Spots on Sun Are Blamed For 'Freak' Reception Of Tiny Waves

SURPRISED to hear the sound portion of London's television broadcasts from Alexandra Palace, New York radio men at Radio Central, Riverhead, L. I., attribute the "freak" ultra-short wave reception to the sunspots now rampant on the face of Old Sol.

The big "freckles" are expected to reach a maximum by 1939 and under their influence the radio engineers never know exactly what to expect from the "ether."

Under the increasing influence of the sunspots ultra-short waves from 6 to 10 meters in length are skipping across the Atlantic at certain hours with almost as much clarity as the regular short waves, according to Harold H. Beverage, president of the Institute of Radio Engineers. At the same time Europeans report reception of ultra-short waves broadcast by police cars in the United States. All this is contrary to the old theory, but there are continued indications that ultra-short waves projected with enough power will span long distances and are not necessarily restricted to the horizon as seen from the aerial location.

Images Are Not Seen

To date no reports have been received that London's television images have crossed the sea. This may be explained by the fact that the telepicture transmitter is not as powerful as the installation that broadcasts the affiliated sounds.

To explain the "freak" reception, radio men point out that because of the sunspots electrical charges in the upper atmosphere are increasing, making the rarefied layers at high altitudes a more perfect "mirror" for reflecting ultra-short waves back to the earth:

Owners of ordinary short-wave receivers who listen in for distant programs are now experiencing, for the first time, the effect of the increasing solar "storms." Overseas radio reception is becoming more spotty—that is, good one day and poor the next. Even within a few minutes on a certain wavelength, reception may change sharply from strong signals to weak, then back to strong, and so on. Frequently this fading becomes so rapid that the programs flutter. This occurs when the direct rays from a sunspot sweep across the earth, the engineers believe. Often there is a complete "fade out" of the signals over a number of channels. This may happen rapidly and last only a few seconds or minutes.

"I can foresee no real trouble developing between English and American television systems because of the sunspot cycle," said Mr. Beverage, who is chief research engineer of RCA Communications. "On the other hand, we have had no opportunity of studying the ultra-short waves during such a period, and some surprises may result. Engineers all over the world will observe the progress of the cycle with much interest."