

COSMIC SHOWERS DISRUPTING RADIO

Global Communications, but Not Local Broadcasts, Hit by Solar Outbursts

Explosions on the surface of the sun, described as equal to the force of a million hydrogen bombs, showered the earth with an unusual intensity of cosmic rays yesterday.

The phenomenon caused magnetic storms reported to be disrupting radio communications throughout the world.

Apparatus at the Greenwich Observatory, in Hurstmonceaux, England, recorded a cosmic intensity of about one hundred billion volts—twice the normal intensity—during the two hours beginning 3:45 A. M. (10:45 P. M., Wednesday, New York time).

Dr. Thomas Gold, assistant to the British Astronomer Royal, Richard V. Woolley, explained that the activity apparently had been caused by "a remarkable event on the surface of the sun—probably a massive sunspot."

The Associated Press quoted Dr. Gold as having compared the solar outburst to the simultaneous explosion of one million hydrogen bombs.

Cosmic rays consist of atomic nuclear particles from outer space that travel with thousands of times the energy generated in the world's most powerful atom smashers. Most of these particles disintegrate in collisions with the earth's atmosphere.

The local office of Press Wireless reported intermittent interference yesterday with its international radio communications. The operations supervisor, George McGeagh, said, "Sometimes we can't hear the signals at all." He added, however, that local broadcast frequencies had not been affected.

Similar reports of interference came from short-wave station WHD, operated by The New York Times. WHD said there had been frequent "fade-outs" in signals from London and Moscow.

However, there was no effect on television reception in this area.

Record Reading in Chicago

Coinciding with the British observation was a recording of five billion electron volts at the University of Chicago—the greatest outburst of cosmic activity ever recorded there.

Physicists at the university's Enrico Fermi Institute for Nuclear Studies immediately launched a series of balloon flights to record the phenomenon in the upper atmosphere.

The university said an even greater concentration of cosmic rays was reported at its station at Climax, Colo., a town at an elevation of 11,000 feet.

Physicists said that cosmic radiation affected human beings and other animal life much as does a nuclear weapon. They added, however, that the radiation from the sun had not been sufficient to cause harm.

The nature of cosmic radiation will be the subject of intensive research during the period of coordinated earth studies known as the International Geophysical Year, 1957-58.

Current research includes a program by the State University of Iowa, which is sending Geiger counters and other recording apparatus to heights of twenty-four miles. This project is sponsored by the Office of Naval Research and the Atomic Energy Commission.

Last December, the National Science Foundation awarded a grant of \$11,500 to New York University for the construction of a cosmic ray counter, or neutron monitor. The monitor will be constructed on the N. Y. U. campus and installed next summer at Fairbanks, Alaska, in the geophysical observatory of the University of Alaska.

It is hoped that new knowledge will be gained on the relationship between cosmic radiation and the aurora borealis, or northern lights.