SUN SPOTS BLOCK RADIO MESSAGES

Magnetic Storm Sweeping the Earth Due to Intensify for 12 More Days

A magnetic storm, sweeping in from stellar space and bringing two huge spots to the sun's surface, played strange tricks yesterday across a wide part of the earth as compass needles on ships at sea trembled erratically, teletype machines tapped messages that had no meaning and short-wave communications between the United States and Europe went into a temporary "blackout."

The electrical attack began yesterday soon after midnight and spasmodic disruption continued on international radio communication for more than six hours, with Mackay Radio and Telegraph Company reporting a complete fade-out over the Atlantic from 4 A. M. to 7 A. M. Officials at RCA Communications, Inc., said that they had been able to maintain only "subnormal" contact with Europe from 4 to 6 A. M., and they pointed out that while communication was maintained with all points "open" during that period there was a noticeable "dip in radio waves."

The long-lines division of the American Telephone and Telegraph Company, local radio outlets and other communications systems that were expected to be affected by the electrical bombardment were apparently untouched, but astronomers warned that the "sun-spot disturbances" have another twelve or thirteen days to go and might increase in intensity.

Spasmodic Disturbances Cited

Meanwhile a Reuter dispatch from London reported that the electrical phenomenon was causing spasmodic disruption in cities as far apart as "Bombay and Singapore on the one hand and Cairo and Lisbon on the other," with some bad effects being felt in radio communications in South America.

The last serious disruption caused by "sun-spot storms" was in March, 1940, when an electrical tornado delivered a crippling blow to international communications as well as airports, railroads, newspaper offices and other services dependent upon extensive communications.

The two spots on the sun, estimated by some scientists as covering an area of 3,500,000,000 square miles of the sun's surface, are big enough to be seen by the unaided eye, but despite their tremendous size they appear to be only specks against the sun's brilliance. Dr. Gordon Atwater, chairman of the Hayden Planetarium of the American Museum of Natural History, said that New Yorkers who look for the two spots a little after noon today would find them—assuming the sun to represent a clock—at approximately "10 o'clock," about two-thirds of the way from the sun's center toward the rim.

Astronomers Keenly Interested

Those who intend to look for the spots were warned to use colored glasses to protect their eyes.

A brilliant display of the aurora borealis may follow the sun spots' appearance, astronomers declared, with the stellar pyrotechnics "scheduled" within the next two or three nights.

The magnetic storm broke while the American Astronomical Society was meeting in its final session at Columbia University and the astronomers discussed it with interest. Alan Shapley, Carnegie Institution scientist doing research on the subject and son of Dr. Harlow Shapley of the Harvard Observatory, said that the spots on the sun's surface and the disturbances in communications were both the "effects of the same disease."

The source of electrical disturbances is often attributed to the sun spots simply because they generally appear simultaneously with the disturbances, Mr. Shapley said, whereas actually the source is not known.

The sun-spot phenomenon was something of a recess for the astronomers, who ended their two-day meeting with a presentation of a paper relating to Einstein's general theory of relativity. Dr. Luis Enrique Erro and Dr. Carlos Graef, director and assistant director respectively of the Mexican Astrophysical Observatory at Tonanzintla, Mexico, described their experiments as indicating that the expansion of the universe is not slowing down and that Newton's simple concepts rather than Einstein's theory of relativity apply to measurements of infinite space.