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Sunspot Activity Over the Philippines

This year news services have carried a ~~lot~~ much about the IGY (International Geophysical Year), the firing of rockets, the launching of artificial satellites and ionospheric probing by radio waves. This is all timed to coincide with activity of the sun. Solar activity is now supposed to be at a maximum. Every eleven years, approximately, there is a maximum activity for the sun, but this year there are indications that the world is experiencing a maximum of maximums.

Just what is solar activity? Extraordinary markings now daily appear on the sun's surface. Because the sun is so bright, very seldom can a person look into the sky and see what is going on over the sun's face. This requires cameras with special filters attached to telescopes. Some filters are used to cut down the intensity of the sun's rays. Other filters choose certain wave lengths among the rays.

The sun, solid as it appears, is not solid, nor is it even cool enough for the boiling of metals. It is gaseous right down to the core. However the sun is quite substantial. It weighs twice a billion, billion, billion metric tons. The sun is full of electricity and magnetism. It is a nuclear pile which has been converting hydrogen to helium for about three or four billion years. All this energy, coupled with the rotation of the sun, pushes the gases in certain regions around in great whirls. These whirls start on the inside of the sun and work their way to the surface. The whirls produce a magnetic field. This magnetized region restricts the flow of hot gases through itself. Consequently it cools. These magnetized regions look black on the sun's surface, because they are cool relative to the rest of the sun. Actually, they are very hot; in fact, their temperature is over 8,000 degrees Fahrenheit. Another reason why these spots are cool, relative to the rest of the sun, is because their magnetism exerts a pressure, which pushes out much of the gas in the magnetized region and makes the region cooler.

Short wave radio reception over the Philippines faded out totally on Thursday noon, September 19th, 1957. At the Manila Observatory in Baguio, radio ~~reception faded out~~ blackout was detected. Father Mennessey, S.J., at the ionosphere station noted that the radio signals to the sky failed to return. They were trapped by millions of electrically charged particles. At the same time, a large group of sunspots were directly overhead, opposite the earth on the face of the sun. These spots shifted a bit and caused a flare.

A flare is an enormous brightening of a limited region in the chromosphere of the