SUNSPOTS

The outstanding photo of the sun above recorded the biggest number of sunspots ever photographed in modern history (433 sunspots). It was taken by the Manila Observatory solar station in Baguio City Dec. 22, 1957. The best photos of sunspots have come, so far, from the Philippines because of its unique geographical position.

RP role in sunspot study outstanding

By Alberto Rous

The Philippines is proving to be an outstanding contributor to the increasing world knowledge about the sun and sunspots because of its unique geographical location, NSDB Chairman Juan Salcedo Jr. said yesterday

He said photographs of the sun taken by the Manila Observatory solar stations in Baguio and Quezon City have earned praises from the World Center for Sunspot Studies in Switzerland because of their high quality.

Rare photographs

Some of the photos showed details of the sun's surface never been photographed before. Other shots gave indications tending to prove long-standing theories concerning activities on its white-hot surface.

Fr. James J. Hennessey, S.J., of the Manila Observatory, said local solar observations scored a "first" when photographs of "striations suggestive of magnetic lines of force between sunspots" were taken for the first time.

He said the "pinch effect" so familiar to modern experiments on controlled nuclear fusion (H-bomb) has also been reported by the solar observatory. Fusion or joining of atoms, as opposed to atomic splitting or fission, goes on constantly in the sun, creating solar activity of many kinds, including the flares that disturb the earth's ionosphere.

Photos to Switzerland

Fr. Hennessey said local observations on the sun's activities during 1964 and 1965 are being sent regularly to Switzerland in line with the International Year of the Quiet Sun (IQSY) program — a worldwide project to study the sun at its sunspot minimum (when the number of sunspots is lowest).

These studies are important because sunspots have been known to cause ionospheric disturbances which interfere with transmission of communication and radio signals and also because of their effect on weather and the future flight of astronauts into outer space.

Amply equipped

Regarding the huge explosions on the sun's surface (flares) which send out tremendous energy, including X-rays, Fr. Hennessey disclosed that the Manila Observatory is now equipped with five new indirect solar flare detectors to detect these earth-disturbing phenomenon.

Some of these devices, the riometers, can detect any change in the intensity of cosmic radiations passing through the ionosphere, while some monitor lightning flashes and record any change in the transmission of long-wave signals from Seattle, Washington.

Better study area

Underscoring the unique geographical advantage the Philippines has over any other country in solar observations, Fr. Hennessey said solar study opportunities here are better here than anywhere else because this country is located in an area where observations can be made almost everyday, even during days when the rest of Europe and Asia are overcast.

Fr. Richard A. Miller, of the solar research department, has taken a rare photograph of the sun showing 453 sunspots, the biggest number ever to be photographed. This took place on Dec. 22, 1957.