

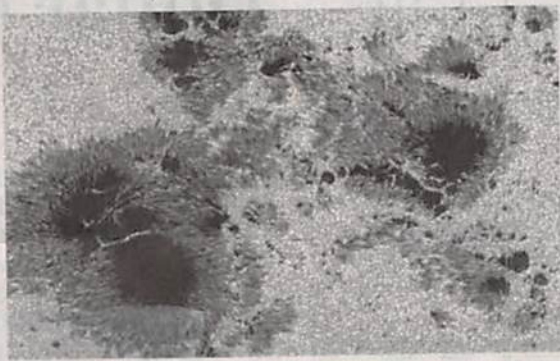
Gigantic sunspot group observed

(THE JAPAN NEWS)

The Yomiuri Shimbun NOV. 21, 2014

A gigantic sunspot group — 66 times the size of the Earth — has been observed since October, a phenomenon seen for the first time in 24 years, according to the National Astronomical Observatory of Japan.

The sunspot group emerged on the side of the sun's surface facing the Earth in mid-October.



Toward the end of the month, it had grown to about 66 times greater than the globe. After temporarily moving out of sight as the sun rotated, the phenomenon became visible again on Nov. 13, NAOJ said.

On Wednesday, NAOJ and the Japan Aerospace Exploration Agency unveiled images obtained when the sunspot group developed in October.

Sunspots, which are caused by strong solar magnetic activity, become visible as dark spots due to their reduced surface temperature under the influence of powerful magnetic fields.

The number of sunspots rises and falls in a cycle of about 11 years. Near the end of 2008, the sun entered what is called the solar maximum, a period in which activity is heightened.

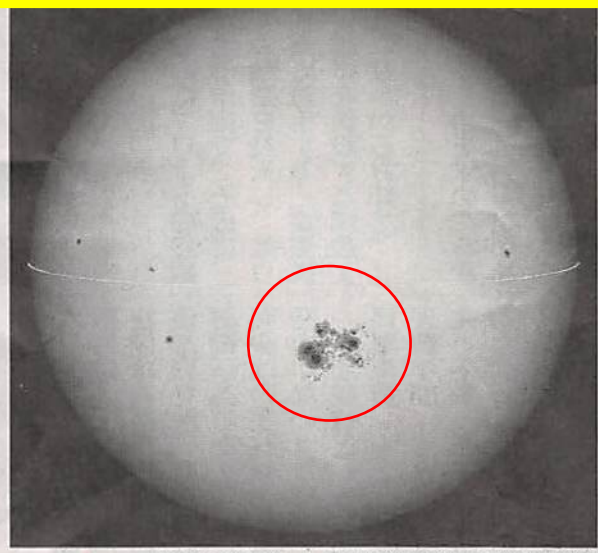
In what is known as a solar flare, a violent explosion occurs around a sunspot. The phenomenon can cause such disruptions on the Earth as power outages and communications disruptions. Although six gigantic flares took place in October, no major damage was reported.

Contents of English article and Japanese article are more or less the same. Editor.



Courtesy of NAOJ and JAXA

Above: A gigantic sunspot group seen through a telescope installed at the NAOJ. The photo was produced by coloring a black-and-white original image, and a white line was drawn to indicate the sun's equator.
Right: A sunspot group photographed from a satellite. Both images were taken on Oct. 24.



国立天文台と宇宙航空研究開発機構 (JAXA)は10月に現れた太陽の巨大黒点群の画像を19日、公開した写真、国立天文台提供。

黒点群は10月半ば、地球に向けた面に現れ、下旬には地球約66個が入るほどの大きさになった。国立天文台によると、これほど巨大になったのは1990年以來、24年ぶりという。その後、太陽が自転し、いったん見えなくなったが、今月13日に再び姿を現した。

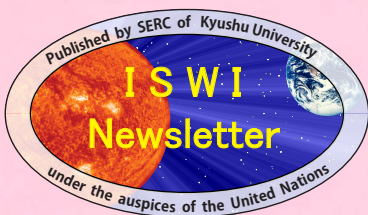
黒点は、強い磁場の影響で周りより温度が低くなり、黒く見える。約11年周期で増減を繰り返し、2008年末頃から「極大期」という黒点が増える時期に入っている。

黒点付近は、磁場の影響で「フレア」という大爆発が起き、これが停電や通信障害などにつながる場合がある。10月は巨大フレアが6回起きたが、大きな影響はなかった。

太陽の巨大黒点群

24年ぶり
地球66個分

2014年(平成26年)11月20日(木曜日) 第7号



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