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By WARREN E. LEARYSpecial to The New York Times

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Special to The New York Times

WASHINGTON, May 6 — The Sun has thrown out a small piece of itself, causing a major geomagnetic storm over the Earth, the National Oceanic and Atmospheric Administration said today.

The storm resulted in unusually bright aurora displays in the upper atmosphere and disturbed some long-distance communications, the agency said today.

An eruption of mass from the surface of the Sun, including a small but persistent solar flare, on Wednesday caused the storm, which reached the Earth on midnight Thursday.

## **Magnetic Field Shifts**

Gary Heckman, chief of the agency's Space Environment Services Center in Boulder, Colo., said by telephone that such storms usually peak within 24 to 48 hours and then taper off. The current storm appeared to reach its apex today and should end sometime Saturday or Sunday, experts said.

In such a storm, the Sun's magnetic field moves out from its normal position and interacts with the magnetic field of the Earth. Low-energy charged particles from the Sun join in this magnetic mingling to cause energy disturbances in the upper atmosphere.

Storms like this can interfere with high-frequency radio transmissions, long-line telephone communications and satellite communications. Mr. Heckman said there had been few reports of communications interference so far, except for problems with one communications satellite.

## Northern Lights Display

The Northern Lights, or aurora borealis, brightened overnight Thursday in the Northern Hemisphere and could be seen in the northern skies as far south as Denver, Mr. Heckman said. Such displays could continue, at lower intensity, for one or two nights, he added.

Mr. Heckman said that the Solar Maximum Mission satellite recorded the ejection of mass Wednesday and that a small flare lasting more than three hours shot up from the Sun before crashing back to the surface.

The Sun is at the minimum of its 11-year cycle of activity, said Mr. Heckman, whose center monitors extraterrestrial phenomena and is known as the "space weather service."

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