

Solar storm near Earth caused by fast CME

March 18 2013



Aurora over Prudhoe Bay, Alaska. Image Courtesy of Greg Syverson

On March 17, 2013, at 1:28 a.m. EDT, the coronal mass ejection (CME) from March 15 passed by NASA's Advanced Composition Explorer (ACE) as it approached Earth. Upon interacting with the giant magnetic bubble surrounding Earth, the magnetosphere, the CME caused a kind of solar storm known as a geomagnetic storm. The storm initially caused a mild storm rated on NOAA's geomagnetic storm scales as a G2 on a

scale from G1 to G5, and subsequently subsided to a G1. In the past, storms of this strength have caused auroras near the poles but have not disrupted electrical systems on Earth or interfered with GPS or satellite-based communications systems.

NOAA's [Space Weather Prediction](http://swpc.noaa.gov) Center (<http://swpc.noaa.gov>) is the United States Government official source for space weather forecasts. For this storm, they predict:

- "Potential Impacts: Area of impact primarily poleward of 60 degrees Geomagnetic Latitude.
- Induced Currents - Weak power grid fluctuations can occur.
- Spacecraft - Minor impact on satellite operations possible.
- Aurora - Aurora may be visible at high latitudes, i.e., northern tier of the U.S. such as northern Michigan and Maine."

Provided by NASA's Goddard Space Flight Center

Citation: Solar storm near Earth caused by fast CME (2013, March 18) retrieved 20 March 2024 from <https://phys.org/news/2013-03-solar-storm-earth-fast-cme.html>

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