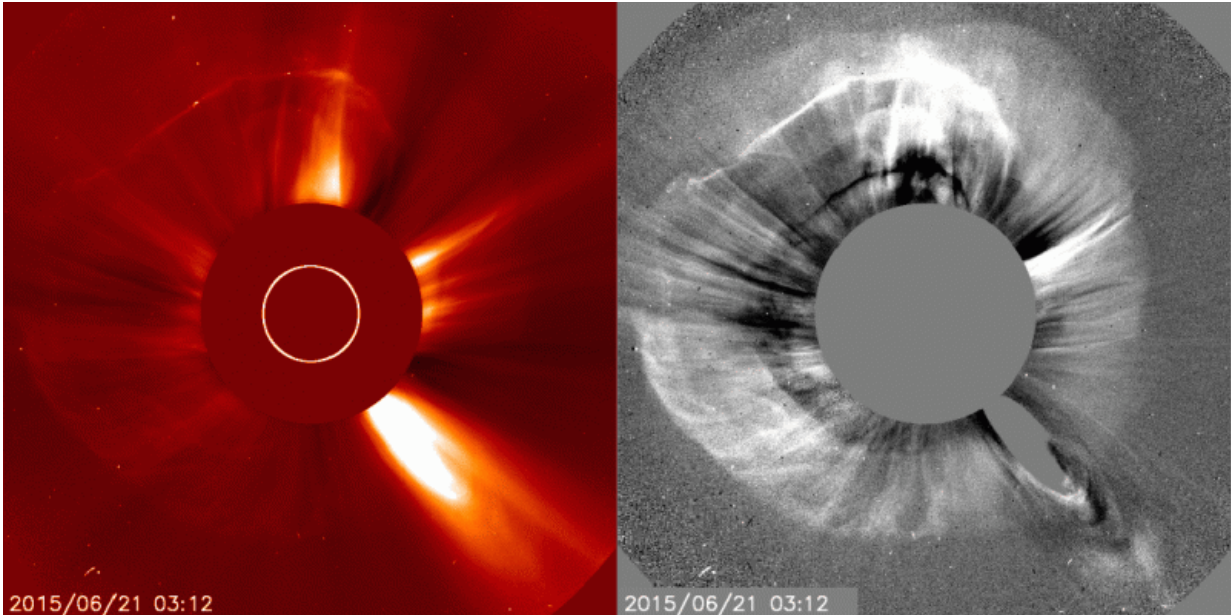


# Earth-directed CME lights the skies

June 25 2015, by Sarah Frazier And Susan Hendrix

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Two views of the CME on June 20, 2015 from the Solar and Heliospheric Observatory, or SOHO. Earth-directed CMEs like this one are often called halo CMEs, because the material shooting off from the sun looks like a ring around the disk of the sun. This halo can be seen more clearly in the right-hand image called a difference image, which is created by subtracting two consecutive frames to see how the image has changed. Credit: ESA&NASA/SOHO

Earth experienced a geomagnetic storm on June 22, 2015 due to the arrival of an Earth-directed coronal mass ejection, or CME, from June 20.

The CME originated at 10:24 p.m. EDT on June 20, 2015. Coronal material exploded from the sun at about 780 miles per second, arriving at Earth at 1:59 p.m. EDT on June 22.

NOAA rated the resulting [geomagnetic storm](#) as G4, or severe. To see how this event affected Earth, visit NOAA's Space Weather Prediction Center at [spaceweather.gov](#), the U.S. government's official source for space weather forecasts, alerts, watches and warnings.

A geomagnetic storm happens when the plasma and magnetic fields in a CME interact with Earth's magnetic field, disturbing the magnetosphere and allowing stored plasma to flow towards the [magnetic poles](#).

The same [active region](#) produced two other CMEs in the past few days, which were pushed along by the faster Earth-directed CME from June 20.

As a result of the geomagnetic storm, aurora were sighted in several mid-latitude locations, including Virginia in the United States and in the United Kingdom.



Aurora as seen 30 miles west of Philadelphia, PA on June 23, 2015. Credit: Jeff Berkes



Aurora as seen in Louisa, Virginia on June 23, 2015. Credit: David Murr



"The most intense aurora I've ever seen. It started with a wall of light between Lake Preston and DeSmet, South Dakota, while the moon was still out." Credit: Christian Begeman

Provided by NASA

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