

## Fast solar wind causes aurora light shows

October 12 2015







Credit: Image courtesy of Johnny Henriksen/Spaceweather.com

On the night of Oct. 8, 2015, a photographer in Harstad, Norway captured this image of the dancing northern lights. Auroras are created when fast-moving, magnetic solar material strikes Earth's magnetic bubble, the magnetosphere. This collision rattles the magnetosphere in an event called a geomagnetic storm, sending trapped charged particles zooming down magnetic field lines towards the atmosphere, where they collide brilliantly with molecules in the air, creating auroras.

Though many geomagnetic storms are associated with clouds of solar material that explode from the sun in an event called a <u>coronal mass</u> <u>ejection</u>, or CME, this storm was caused by an especially fast stream of solar wind.

"Geomagnetic storms caused by high-speed solar wind streams aren't uncommon," said Leila Mays, a space physicist at NASA's Goddard Space Flight Center in Greenbelt, Maryland. "Near solar minimum—when solar activity like CMEs are less frequent—these fast streams are actually the most common cause of geomagnetic storms that create auroras."

## Provided by NASA

Citation: Fast solar wind causes aurora light shows (2015, October 12) retrieved 28 April 2024 from <u>https://phys.org/news/2015-10-fast-solar-aurora.html</u>

This document is subject to copyright. Apart from any fair dealing for the purpose of private



study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.