

# A supermoon and solar flares: What on Earth is going on in space?

March 17 2011, by Matt Terry

---

(PhysOrg.com) -- Assistant Professor Sarah Symons explains some of the out-of-this-world activity happening in space.

With earthquakes, tsunamis and storms wreaking a seemingly endless amount of havoc all over the planet, you wouldn't be blamed for thinking the [Earth](#) is trying to send us a message.

Things aren't much calmer in [outer space](#). The sun is currently advancing toward [solar maximum](#) - the most active period in the [solar cycle](#) - and the moon will make its closest approach to Earth in nearly 20 years on March 19, while also being full - called a "supermoon" by astrologer Richard Nolle. As a result, some have predicted catastrophe: solar storms could knock out power grids, satellites and traffic control systems, and the moon's normal effects on the planet could be magnified, causing untold damage.

Others, such as McMaster's Sarah Symons, aren't nearly as pessimistic. The assistant professor in the Integrated Science Program says that while we may see some of the effects of the two events, the results will not be nearly as disastrous as some have claimed.

"Its incredibly rare to have the moon reach its perigee (its closest orbital approach to Earth) while also full, so of course people are going to speculate as to its effects," she said. "Earthquakes do happen and volcanoes are active during lunar perigee, but they also happen throughout the year, so no real correlation has yet been found."

Ocean tides will be larger around the perigee, though not by much.

"The most dramatic effect will simply be the sight of the moon, which will appear to be larger in the sky," the result of its being only slightly more than 350,000 kilometres away.

As for solar storms, Symons says there is always the possibility of damage being done, especially to older, less-protected satellites, but that the chance of something more cataclysmic happening on Earth is minimal.

"Earth is actually quite well-protected from things like this," she said. "But much like a car's airbags can only defend against certain types of collisions, so too are the planet's defenses somewhat limited to certain types of projections coming from the sun. That being said, the probability of havoc-inducing solar storms occurring is still relatively low."

During a 1989 peak in solar activity, six million people in Quebec were left without power for about nine hours.

The cloud of impending solar storms could potentially have a silver lining, however, as such activity can increase the strength and visibility of aurora borealis, or the Northern Lights.

Provided by McMaster University

Citation: A supermoon and solar flares: What on Earth is going on in space? (2011, March 17) retrieved 24 April 2024 from

<https://phys.org/news/2011-03-supermoon-solar-flares-earth-space.html>

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.