"Space Weather" - Solar Flares

Post by “Kalosyni” of December 16, 2023 at 3:16 PM

Just in case anyone else is interested...I wanted to share what I've been finding regarding space weather, and since we are nearing the solar maximum of sun flares and sun spots.

This is interesting to me both because of the science and also because I am attempting to assess the probability of whether or not a strong CME might hit Earth and affect technology, the electrical grid, and of course the internet.

At first glance it may seem like a "dooms-day" scenario, but as I've been reading that there is as high as a 25 percent probability of something really strong occuring (have to go back and find the source on that statistic).

For myself, it seems relevant to the Epicurean understanding of the nature of things...and also it lends itself to remembering to consider self-sufficiency (although I am no prepper, but possibly this may turn me into becoming one ).

So from a purely scientific stand-point here are five webpages:

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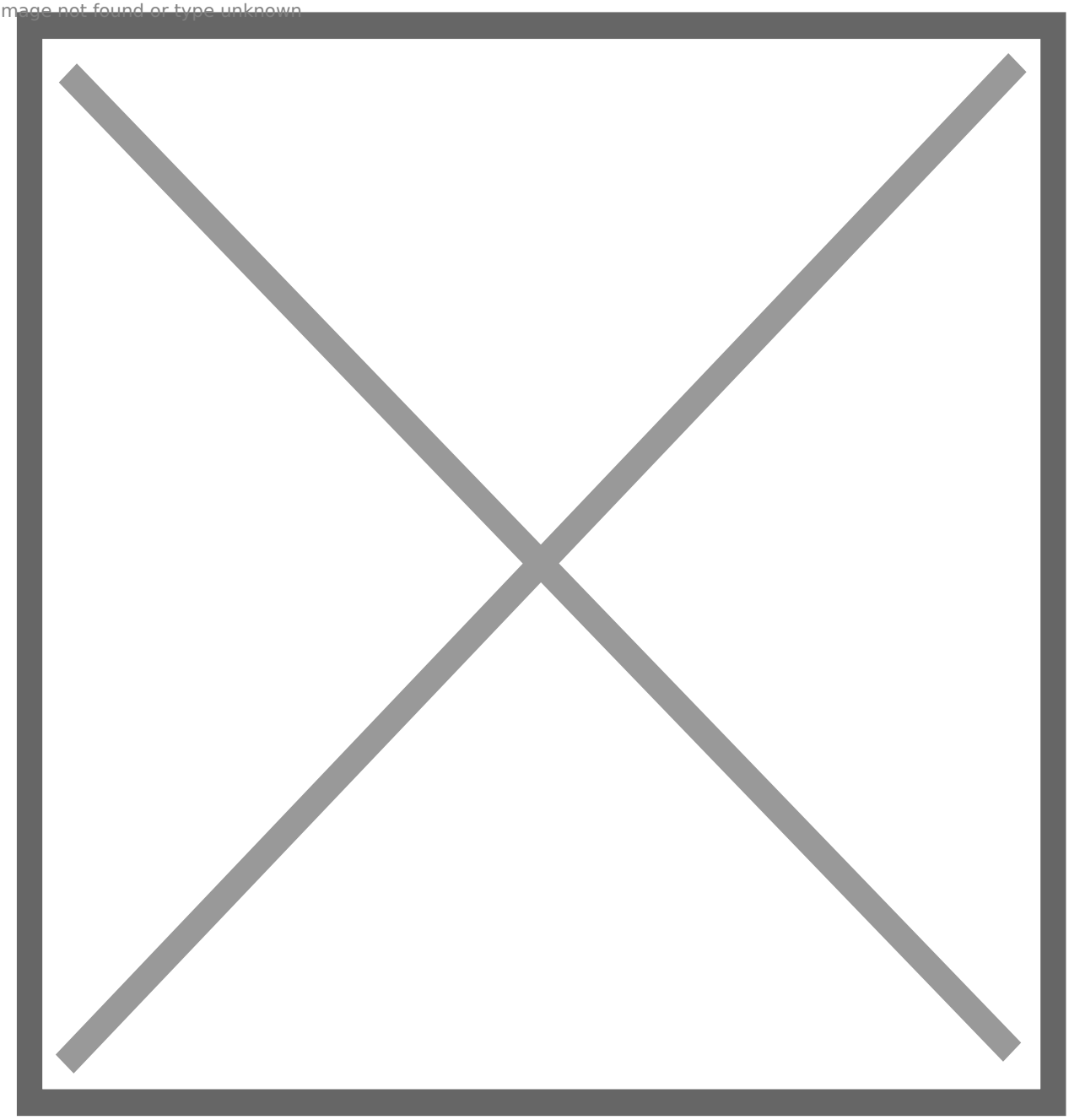

[Space weather: What is it and how is it predicted?]
Space weather can wreak havoc on our technological world.
www.space.com

> Quote
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> There are two distinct types of solar storm: Geomagnetic storms and solar radiation storms.

> The first of these refers to strong disturbances to Earth's magnetic field caused by ejected solar material called a coronal mass ejection (CME). The second. refers to a stream of much faster moving particles ejected by the sun. According to NOAA's National Weather Service, solar radiation storms involve large quantities of protons and electrons which bathe the near-Earth satellite environment, these storms can last from a few hours to days, depending on the magnitude of the eruption.

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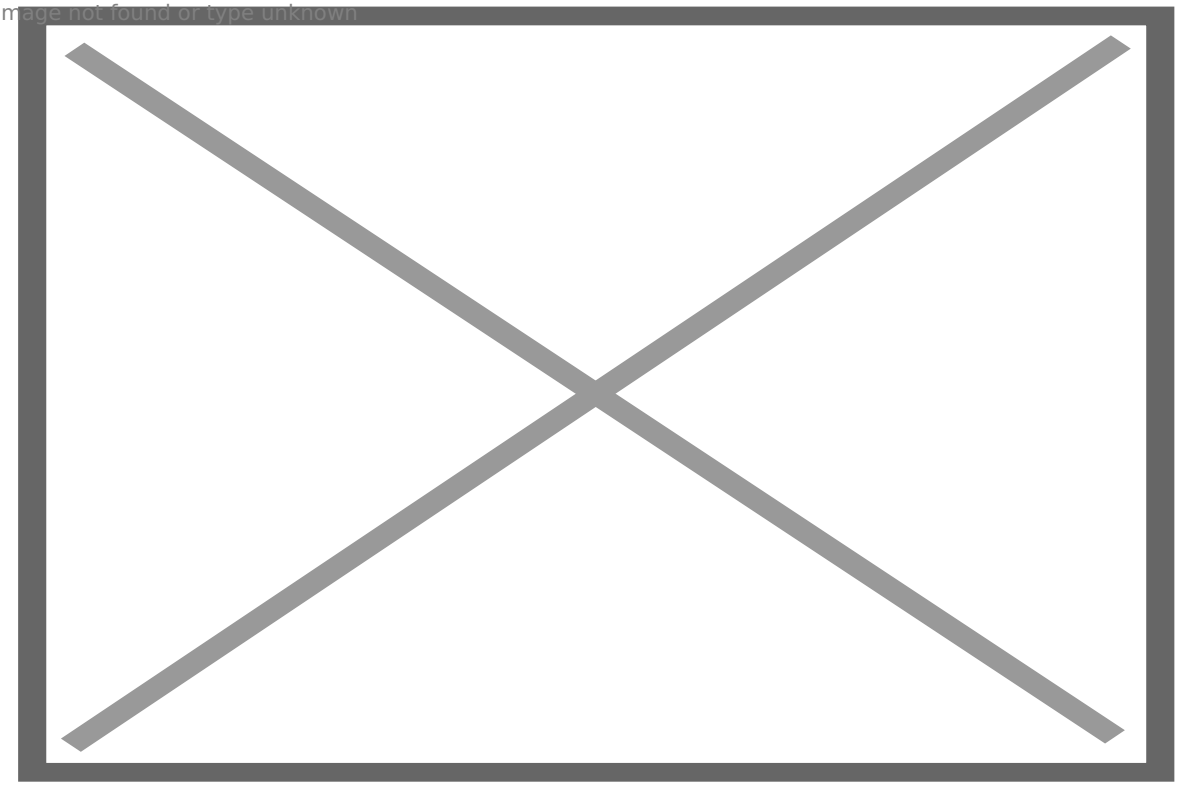

A large solar storm could knock out the internet and power grid — an electrical engineer explains how

Every few centuries the Sun blasts Earth with a huge amount of high-energy particles. If it were to happen today, it would wreak havoc on technology.

www.astronomy.com

Space Weather Enthusiasts Dashboard | NOAA / NWS Space Weather Prediction Center

NOAA Space Weather Scales | NOAA / NWS Space Weather Prediction Center

Space weather effects on technology