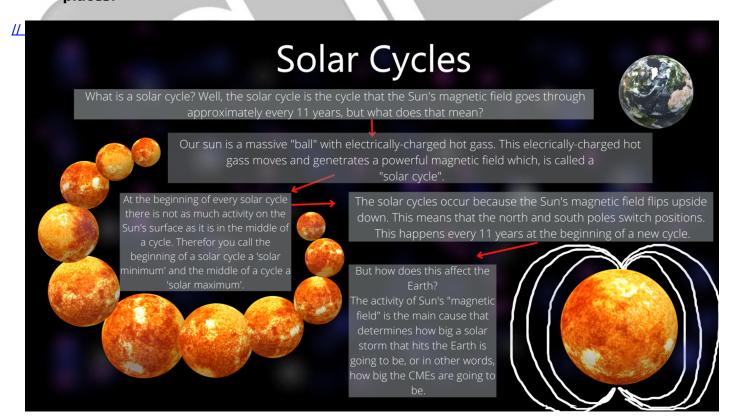


Simultaneous Eruption of Solar Flares

Source: IE

Recently, the <u>National Aeronautics and Space Administration (NASA)</u> solar dynamics observatory captured a rare celestial event that occurred with **four solar flares erupting simultaneously.**

- It originated from three <u>sunspots</u> and a large magnetic filament, demonstrating complex magnetic interactions.
- When the sun reaches the peak of its 11-year solar cycle known as solar maximum, it exhibits heightened activity.
 - It is known as a sympathetic solar flare, where multiple eruptions occur across the Sun's magnetic field, linked by massive magnetic field loops.
- Sympathetic flares are caused by one eruption triggering others, leading to <u>Coronal Mass</u>
 <u>Ejections (CMEs)</u> and massive bursts of plasma.
- It is considered rare because most reported sympathetic flares involve only two linked flares, while this one involved four flares erupting in unison making it a super-sympathetic event.
- These types of events have the potential to disrupt power grids, telecommunication networks on Earth, and orbiting satellites, and expose astronauts to dangerous radiation levels.
- This event offers scientists an opportunity to understand the Sun's complex life cycle and magnetic interactions better.
- The sun's magnetic field goes through a cycle, called the solar cycle, every 11 years the Sun's magnetic field completely flips which means the sun's north and south poles switch places.



Read more: Solar Radiation Management

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