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Get ready for a 'global Katrina': Biggest ever solar storm could cause power cuts which last for MONTHS

By [David Derbyshire](#)

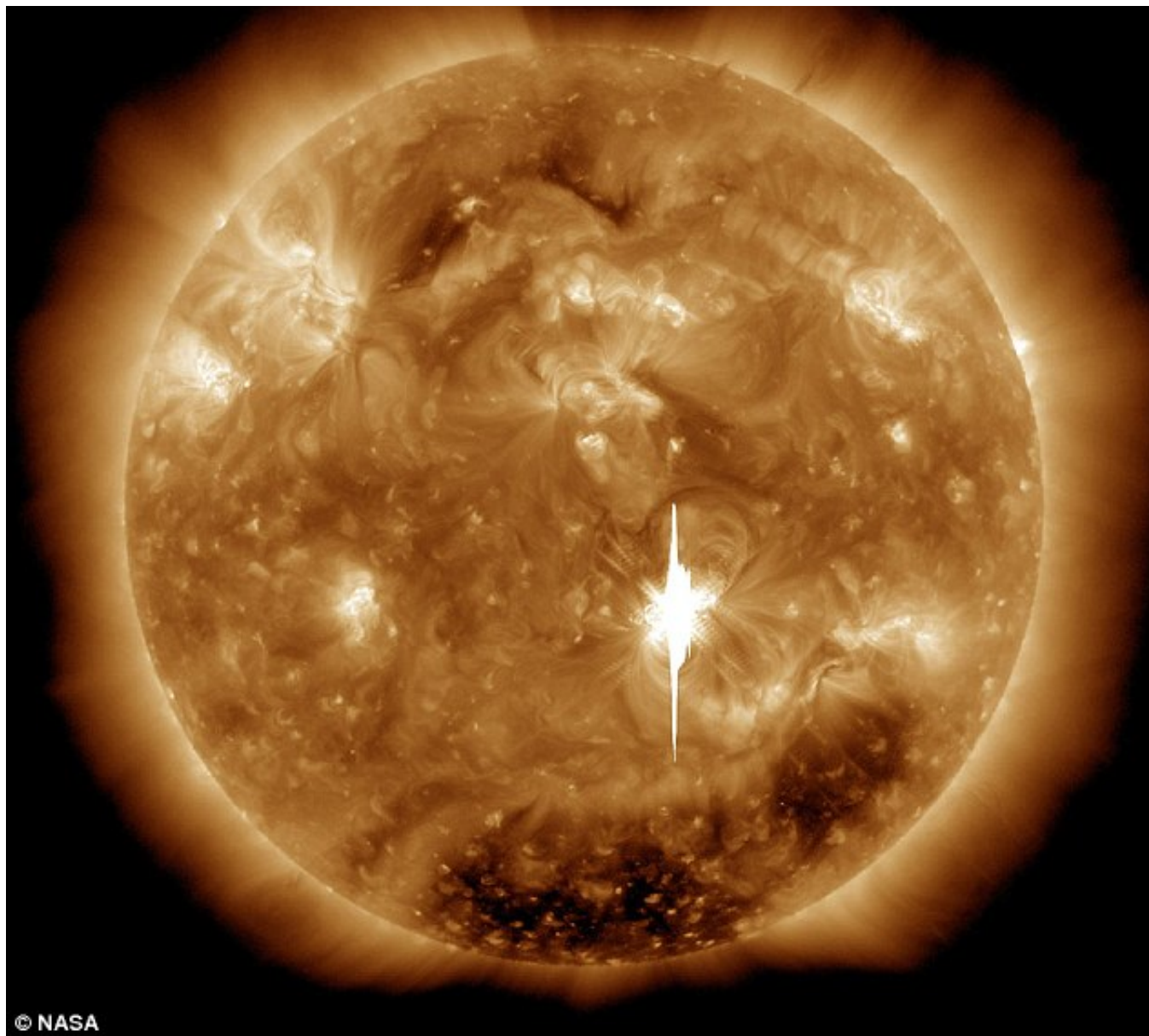
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- **Earth is overdue a solar storm as the sun enters its most active period**

The world is overdue a ferocious 'space storm' that could knock out communications satellites, ground aircraft and trigger blackouts - causing hundreds of billions of pounds of damage, scientists say.

Astronomers today warned that mankind is now more vulnerable to a major solar storm than at any time in history - and that the planet should prepare for a global Katrina-style disaster.

A massive eruption of the sun would save waves of radiation and charged particles to Earth, damaging the satellite systems used for synchronising computers, airline navigation and phone networks.



Imminent: The world got a taster of the sun's explosive power last week with the strongest solar eruption in five years (white flash, centre) sent a torrent of charged plasma hurtling towards the world. Scientists believe we are overdue a ferocious solar storm

If the storm is powerful enough it could even crash stock markets and cause power cuts that last weeks or months, experts told the American Association for the Advancement of Science.

The chances of a disruption from space are getting stronger because the sun is entering the most active period of its 11 to 12-year natural cycle.

The world got a taster of the sun's explosive power last week when the strongest solar eruption in five years sent a torrent of charged plasma hurtling towards the world at 580 miles per second.

The storm created spectacular aurorae and disrupted radio communications.

Professor Sir John Beddington, the government's chief scientific adviser, said: 'The issue of space weather has got to be taken seriously. We've had a relatively quiet period of space weather - but we can't expect that quiet period to continue.'

'At the same time over that period the potential vulnerability of our systems has increased dramatically, whether it is the smart grid in our electricity systems or the ubiquitous use of GPS in just about everything we use these days.

'The situation has changed. We need to be thinking about the ability both to categorise and explain and give early warning when particular types of space weather are likely to occur.'



Threat: Rio de Janeiro during a blackout in 2009. A solar storm could cause global power cuts for months, scientists have warned

Solar storms are caused by massive explosions on the sun.

The explosions release waves of X-rays and ultraviolet radiation which smash into the Earth within minutes, disrupting radio signals and damaging the electronics of satellites.

They are followed ten to 20 minutes later by a burst of energetic particles which cause even more havoc with satellites - and then 15 to 30 hours later by supercharged plasma which collides with Earth's magnetic field.

The plasma create the aurora - or Northern Lights - and can induce electrical currents in power lines and cables.

Jane Lubchenco, head of the U.S. National Oceanic and Atmospheric Administration, said: 'This is not a matter of if, it is simply a matter of when and how big.

'The last time we had a maximum in the solar cycle, about 10 years ago, the world was a very different place. Cell phones are now ubiquitous; they were certainly around but we didn't rely on them for so many different things.

'Many things that we take for granted today are so much more prone to the process of space weather than was the case in the last solar maximum.'



Communications satellites would be knocked out by a solar storm, causing widespread chaos on Earth and hundreds of billions of pounds of damage

The sun goes through a regular activity cycle about 11 years long on average. The last solar maximum occurred in 2001. Its latest minimum was particularly weak and long lasting.

Space storms are not new. The first major solar flare was recorded by British astronomer Richard Carrington in 1859.

Other solar geomagnetic storms have been observed in recent decades. One huge solar flare in 1972 cut off long-distance telephone communication in the mid-western state of Illinois, Nasa said.

Another similar flare in 1989 'provoked geomagnetic storms that disrupted electric power transmission' and caused blackouts across the Canadian province of Quebec, the U.S. space agency said.

Organisations:

[National Aeronautics and Space Administration](#)

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The first thing we need to do is appoint a committee and then have them send a delegation to the sun to ask it please not to send any flares our way because we really don't have enough sunblock and we are simply too busy with far more important things like pensions and endangered tadpoles, so would old Sol please just hold off for a few centuries while the relevant government bureaucracies process the required paperwork and issue a "flare permit" (In triplicate of course and stamped/signed by all the grand poo-bah's) Maybe Al Gore and President Obama could head that delegation - Gore could bore the sun into submission and Obama's smile (his only real asset IMHO) might out-dazzle any stray solar flares...

- LukeJohn, Los Angeles, USA, 21/2/2011 17:36

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Remember all the experts rabbiting on at the start of the Millenium about our PCs going to crash, blow up or not work. Not a damn thing happened. I shan't be having a breakdown or even putting it on hold in expectation. - Terence, Hereford, UK -----
----- PCs weren't the problem. It was the older mainframe systems running software written in the 70s and 80s. Unfortunately, a lot of key infrastructure such as water, gas and electricity utilities used just such software. Fortunately, thousands of programmers worked on the problem and fixed it, so the lights, heating and water stayed on. However this was never reported in the media - a problem averted doesn't make good copy.

- George, Durham, 21/2/2011 17:36

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and tomorrow`s scare story is.....

- Stephen Thompson, Solihull West Midlands, 21/2/2011 17:36

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And three weeks ago, the DM told us that a massive earthquake was going to disrupt the world. This week it is solar wind. Doom mongering.

- Roger, England, 21/2/2011 17:33

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Cue panic buying in the South East of England.

- Me, UK, 21/2/2011 17:31

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Just think, no electricity= no communication, no more scare stories to try and stop us all thinking for ourselves.

- girlyfatcat, st marys bay uk, 21/2/2011 17:29

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