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Solar storm headed toward Earth may disrupt power

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(CBS/AP) WASHINGTON - The largest solar storm in five years is racing toward Earth, threatening to unleash a torrent of charged particles that could disrupt power grids, GPS and airplane flights.

The sun erupted Tuesday evening, and the effects should start smacking Earth between 1 a.m. and 5 a.m. EST Thursday, according to forecasters at the federal government's Space Weather Prediction Center. They say the storm, which started with a massive solar flare, is growing as it speeds outward from the sun.

"It's hitting us right in the nose," said Joe Kunches, a scientist for the National Oceanic and Atmospheric Administration. He called it the sun's version of "Super Tuesday."

Scientists say the sun has been relatively quiet for some time. And this storm, while strong, may seem fiercer because Earth has been lulled by several years of weak solar activity.

"This is a good-size event, but not the extreme type," said Bill Murtagh, program coordinator for the space weather center.

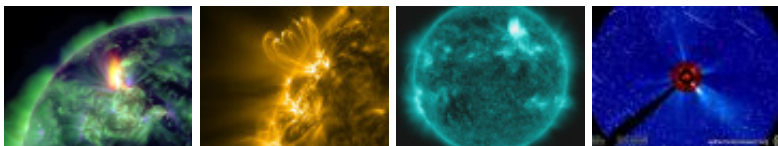
The solar storm is likely to last through Friday morning, but the region that erupted can still send more blasts our way, Kunches said. He said another set of active sunspots is ready to aim at Earth right after this.

But for now, scientists are waiting to see what happens Thursday when the charged particles hit Earth at 4 million mph.

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NASA solar physicist Alex Young added, "It could give us a bit of a jolt." But he said this is far from a super solar storm.

The storm is coming after an earlier and weaker solar eruption happened Sunday, Kunches said. The latest blast of particles will probably arrive slightly later than forecasters first thought.

That means for North America the "good" part of a solar storm -- the one that creates more noticeable auroras or Northern Lights -- will peak Thursday evening. Auroras could dip as far south as the Great Lakes states or lower, Kunches said, but a full moon will make them harder to see.

Auroras are "probably the treat we get when the sun erupts," Kunches said.

But there is potential for widespread problems. Solar storms have three ways they can disrupt technology on

Earth: with magnetic, radio and radiation emissions. This is an unusual situation when all three types of solar storm disruptions are likely to be strong, Kunches said.

That means "a whole host of things" could follow, he said.

The magnetic part of the storm has the potential to trip electrical power grids. Kunches said utility companies around the world have been alerted. The timing and speed of the storm determines whether it knocks off power grids, he said.

As "CBS This Morning" reported back in January, [a solar storm hit Earth](#), giving Canada and Scandinavia a beautiful show. But it forced some utilities to boost power to compensate for electrical interference. It interfered with some satellite transmissions and forced some planes to reroute because of radio interference near the North Pole. (*Watch the Jan. 25 report at left.*)

In 1989, a strong solar storm knocked out the power grid in Quebec, causing 6 million people to lose power.

Solar storms can also make global positioning systems less accurate, which is mostly a problem for precision drilling and other technologies, Kunches said.

There also could be GPS outages.

The storm also can cause communication problems and added radiation around the north and south poles, which will probably force airlines to reroute flights. Some already have done so, Kunches said.

Satellites could be affected, too. NASA spokesman Rob Navias said the space agency isn't taking any extra precautions to protect astronauts on the International Space Station from added radiation.

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