

# Did a comet hit cause an explosion on the sun?

October 5 2011, By Nancy Atkinson

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This amazing video from the SOHO mission (Solar and Heliospheric Observatory) shows a sun-diving comet hitting the solar surface on October 1, 2011 and unexpectedly a huge explosion occurs shortly after. Are the two events related? Probably not, but solar scientists don't know for sure. The region where the CME originated was on the opposite side of the Sun from the comet hit, so that is very great distance. Scientists say there is no known mechanism for comets to trigger a CME.

[SpaceWeather.com](http://SpaceWeather.com) reports that before 2011 most solar physicists would have discounted these two events as being related, but earlier this year, the Solar Dynamics Observatory (SDO) watched another sungrazer comet disintegrate in the Sun's atmosphere, and it appeared to interact with plasma and magnetic fields in its surroundings as it fell apart. Could a puny comet cause a magnetic instability that might propagate and blossom into a impressive CME? Most likely this is just a coincidence, but this is definitely an event in which solar scientists are taking a closer look. The [comet](#), named SOHO-2143, was just discovered on Sept. 30 by an amateur astronomer.

See below for SDO's look at two solar flares which also occurred on October 1, showing how events on the Sun **can** be related.

The two solar flares erupted within a very short period of time, and originated from two active regions, the super-huge 1302 region, and the newer 1305. From SDO, scientists have learned that certain events are connected with each other – in this case active regions far apart can be

linked together by magnetic fields and can erupt one after another. Called “entangled eruptions,” these two active regions far apart but linked by magnetic fields can explode one after another, with disturbances spreading around the stellar surface domino-style. This appears to be the latest example.

The part of the eruption centered on sunspot 1305 hurled a coronal mass ejection toward Earth. The relatively slow-moving (500 km/s) cloud is expected to reach our planet on Oct. 4th or 5th, possibly causing geomagnetic storms when it arrives. High-latitude sky watchers should be alert for auroras

In this second video segment you can also observe the October 1, 2011 eclipse – where Earth is moving in between the SDO spacecraft and the [Sun](#) for over 40 minutes.

**More information:** Sources: [SpaceWeather.com](#), [SOHO](#), [SunGrazing comet Twitter feed](#).

Source: [Universe Today](#)

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