

Hubble catches stellar explosions in NGC 6984

November 8 2013



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SN 2012im is known as a Type Ic supernova, while the more recent SN 2013ek is a Type Ib. Both of these types are caused by the core collapse of [massive stars](#) that have shed—or lost—their outer layers of hydrogen. Type Ic supernovae are thought to have lost more of their outer envelope than Type Ib, including a layer of helium.

The observations that make up this new image were taken on August 19, 2013, and aimed to pinpoint the location of this new explosion more precisely. It is so close to where SN 2012im was spotted that the two events are thought to be linked; the chance of two completely independent supernovae so close together and of the same class exploding within one year of one another is a very unlikely event. It was initially suggested that SN 2013ek may in fact be SN 2012im flaring up again, but further observations support the idea that they are separate supernovae—although they may be closely related in some as-yet-unknown way.

Provided by NASA's Goddard Space Flight Center

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