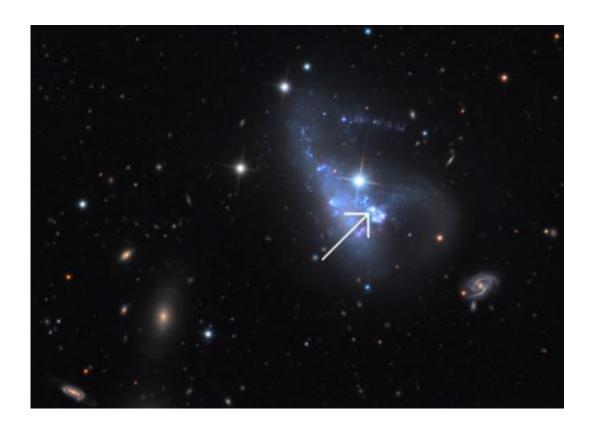


## Blip in night sky tells story of cosmic catastrophe

January 30 2012, By Daniel Stolte



The brightest-looking star in this close-up image is actually not the supernova; rather, it is a star within our own Milky Way that happens to be in the same line of sight. Just below and to the right of that star, three star-like dots are visible. The arrow points to the brightest one: Supernova SN 2012A. "You can see it rivals every other object in its galaxy," said Block. Credit: Adam Block/Mt. Lemmon SkyCenter

(PhysOrg.com) -- NASA's Astronomy Picture of the Day, taken by



Adam Block of the UA's Mt. Lemmon SkyCenter, shows the aftermath of a stellar explosion that happened 25 million years ago in an odd-shaped galaxy that may have merged with a second galaxy.

One day about 25 million years ago, while saber-toothed cats and mammoths roamed the Earth, a catastrophe of epic proportions happened in outer space in a galaxy far, far away from ours.

A star tens of times more massive than our sun blew up in an explosion that astronomers call a supernova.

NASA's <u>Astronomy Picture of the Day</u> for Jan. 27, taken by Adam Block of the University of Arizona's Mt. Lemmon SkyCenter, shows the aftermath of that explosion – the first evidence of a supernova to reach the Earth this year.





The irregular galaxy NGC 3239 is about 25 million light years from Earth. Many other galaxies are visible in this wide-field image. Credit: Adam Block/Mt. Lemmon SkyCenter

All those 25 million years, the burst of light from that explosion raced through the universe to finally reach Earth a few weeks ago, when amateur astronomers, who regularly survey the sky looking for these events, noticed a small blob in the glow of the galaxy that wasn't there in older pictures.

"Their images are taken for the purposes of science and merely detect



the new blip," Block said, who pointed the Schulmann Telescope atop Mt. Lemmon at the distant

galaxy after reading about the event in the news. "But there is a captivating story behind this event that I want to tell with my picture."

When Block read about this supernova, he saw that it had occurred in a strange-looking galaxy he was very familiar with, dubbed NGC 3239.

"NGC 3239 is a so-called irregular galaxy," he said, "because it's not your typical swirling spiral shape. The odd shape of this galaxy is somewhat of a puzzle, but it could be the result of a merger with another galaxy and all we see now is the commingled result of that encounter."

The Schulman Telescope and camera can capture a large field of view, which allowed Block to show the distant galaxy "in a grander perspective as one of many galaxies."

To obtain enough light for a crisp and highly detailed image, Block combined many individual pictures that totaled around eight hours of exposure time. Remarkably, these images were collected by controlling the telescope remotely from Tucson.

## Provided by University of Arizona

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