

Betelgeuse supernova could shine like a high noon comet

Have you ever wondered what the sky would look like if a bright star went supernova; the explosion of a large star? Our sun is too small to do this whereas the star that pre-dated the Crab Nebula was many times larger.

When a supernova occurs, most of the matter in the gas ball is exploded out at nearly the speed of light.

If you are close, you don't get to watch it very long before you are blown into eternity. Contrary if you're far away, it will look like a very bright star, once the light from the explosion has taken its time to reach you. Observers from around the world on July 3rd, 1054 AD saw the formation of the Crab Nebula and reported a bright comet like object 6 times the luminosity of Venus (which was at opposite then) at high noon for over 23 days.

The supernova was so strong that had it occurred within 50 light years of Earth, all living things on the planet might have been destroyed. Naturally many were just as horrified as they were in awe at the unique sight today 6,500 light years away and 5.5 light years wide. The Chinese and Japanese record the appearance of a



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generations!

very bright "guest star" around this time. The superstitious saw it as an omen like solar eclipses and the ultra religious signaled it as the end of the world.

While that's not true, we've learnt this is a natural occurrence when a star ends its life. We may have this opportunity in our lifetime with Betelgeuse over 642 light vears away. Also known as the Valentine star, it's the red pulsation armpit of the constellation of Orion about 1/3 of the brightness of Mars.

While some records exist of the 1054 AD explosion, such an occasion with today's instant communications methods would be the talk of the world for who knows how long. If it happens in our era, it will be the grand happening of our lifetime passed on for

Sky watch for the next month:

- · Waxing Crescent Moon Beehive cluster- Friday, June 07th after twilight look SWW before setting into the night horizon.
- · Venus & 7 sisters sunrise conjunction- Saturday, June 8th look NEE predawn as these rises into the morning sky.

- · Mercury Mars conjunction Tuesday, June 18th look NWW at dusk before setting into the midnight horizon.
- . Longest Day of the Year-Friday, June 21st is officially the summer solstice at 9:54 a.m. MDT and we will have 16 hours and 33 minutes of actual daylight. Sun officially rises at 05:23 am and sets at 21:42 with high noon at 13:33.

Public Events for the next month:

NOVA BBQ at Wilson Coulee Observatory- Saturday, June 22 starting at 4:00 p.m.

For further details contact Jack Milliken at 1-888-924-7272, jm1yh@telus.net

Happy Father's Day and welcome to Summer!

Neel Roberts is a member of the Calgary chapter of the Royal Astronomical Society of Canada (RASC)-the nation's leading astronomy club founded in 1849 with over 5,000 members and 29 centers across Canada. Neel welcomes your questions and comments at (403)560-6574, Neel Roberts@ptccanada.com. The members meet once a

month on weekends at Calgary's Rothney Observatory near Priddis and you can check out times at https://www.ucalgary.ca/ rao/calendar. Like them at Facebook at https://www.facebook.com/ groups/

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