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Sunday is last chance to catch a blood moon until 2033



Skygazers enjoyed not one or two, but three spectacular supermoons in a row in 2014: July 12, Aug. 10. and then a super harvest moon on Sept. 9. A supermoon is 14% closer and 30% brighter than your average full moons, according to NASA. (Anthony Souffle / Chicago Tribune)

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unday will be the last chance to view a super moon lunar eclipse until 2033, and people don't need special equipment to see it, according to area experts.

Stephanie Rybka, director of the Waubonsie Valley High School planetarium, said Sunday night's lunar eclipse happens to align with the time the moon's orbit is closest to Earth. Because the moon is closer, it appears 14 percent larger than normal in the sky, which is why it's called a super moon.

Rybka said the result of the two events combined creates what is known as a "blood moon" because the moon turns a coppery orange color at the peak of the eclipse. "It's the moon, so you don't need anything to see it," she said.

Sunday's super harvest moon lunar eclipse starts at 8:07 p.m. when the outer shadow starts appearing. Rybka said the best time to see the moon with its orange color is from 9:11 to 10:23 p.m.

She said people generally think that if the Earth blocks the sun from shining on the moon, as happens in an eclipse, the moon should be dark. Instead, she said light from the sun is scattered by passing through Earth's atmosphere and the other colors of the spectrum are removed thus giving off the dark orange hue.

If a super moon lunar eclipse weren't enough, Sunday's full moon also is a harvest moon because it's the first full moon closest the autumnal equinox.

To celebrate the super harvest moon lunar eclipse phenomenon, the Waubonsie planetarium is hosting a family night at 7 p.m. Friday Sept. 25 at the high school at the corner of Route 34 and Eola Road in Aurora. Admission is \$2, seating is limited. "The moon is our focus, though we will look at the night sky," she said.

In addition, the Naperville Astronomical Association will set up telescopes outside the planetarium, weather permitting, for a free telescope party at 8 p.m. Visitors are invited to stay after the planetarium program to enjoy the night sky through a telescope.

The Adler Planetarium will be hosting a Lunar Eclipse Viewing Party Sunday from 7 p.m. to 11:30 p.m., according to their website. The event will feature telescope viewings from the Adler Planetarium plaza, special lectures, theater shows, eclipse and moon-related educational programs, tours of the Doane Observatory and a simulcast of the lunar eclipse.

Tickets have been sold out for all the indoor activities but visitors can still go to the telescope viewing and astronomy chats. About 15 telescopes aimed at the moon and other planetary bodies will be outside on the plaza for free.

"A crowd experience is very different than watching by yourself," said Larry Ciupik, senior astronomer and Doane Observatory director. "It's the same kind of effect when you're in the theater and everyone gets excited about the same things. The mood is much higher and the excitement is better."

The Cernan Earth and Space Center of Triton College in River Grove will also be having a telescope viewing from 7:30 p.m. to 11:30 p.m. in front of the Cernan Center building, weather permitting, according to its website.

Waubonsie Valley's Rybka, who teaches astronomy, said she's encouraging her high school students to grab a night sky map app on their mobile devices Sunday and check out the constellations while they're looking skyward at the moon.

Even with light pollution, Rybka said the moon can be seen with the naked eye. Clouds, she said, are the only encumbrance.

The super moon should not be confused with a moon that sits low on the horizon that looks really big. Rybka said this phenomenon is known as a moon illusion because it tricks the brain into seeing a larger object. "Everyone swears the moon is bigger, but it's really not" she said.

For those who want an even closer look at the super moon lunar eclipse, they can head over to the Naperville Riverwalk from 7:30-10:30 p.m. Sunday where the Naperville Astronomical Association will set up telescopes near the grand pavilion.

Eric Claeys, a member of the NAA, said the club tries to organize events around important celestial events. "When you look at the moon, you can see all the craters. People are amazed with the detail," Claeys said.

He said the best part of Sunday's watch party is that families can come and go as they please. "Some people stay for five minutes, some stay for 20 minutes. It's whatever works best," he said.

Claeys said the group's biggest challenge of organizing family-friendly events when it's dark. "We have to schedule everything at night, for obvious reasons," he said.

Not everything happens when the sun goes down, though.

Claeys said the NAA will set up special telescopes with special filters from 9 a.m. to noon. Saturday Sept. 26 at the Riverwalk so people can take a look at the sun. He said the special filters allow sunwatchers to see the burning gas ball without injuring their eyes. He said sometimes people can see a solar flare.

Rybka said while lunar eclipses are interesting, a far more exciting event is a solar eclipse. With that, timing is everything.

The next total solar eclipse visible in the United States won't occur for another two years on Aug. 21, 2017. The last time a total solar eclipse was visible from contiguous United States was 1979.

Folks can start making plans now. The best spot to see it will be near Hopkinsville, Ky., where totality will last for 2 minutes, 40 seconds.

Rybka and Claeys each laughed when asked if Sunday's super moon lunar eclipse — the final blood moon until 2033 — will cause the end of the world.

Rybka said so many myths surround the lunar events, adding there's just no scientific evidence people or animals go crazy during a full moon.

"A lot of the myths come from ancient times," she said. "Everything's just aligning. That's all it is."

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The Chicago Tribune's Grace Wong contributed to this report

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