

# Moon lighting: partial lunar eclipse to be longest since 1440

November 18 2021

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Sky-watchers on the observation deck of Roppongi Hills in Tokyo saw the longest lunar eclipse in almost 600 years.

The longest partial lunar eclipse in nearly 600 years, which will bathe the Moon in red, was visible for a big slice of humanity on Friday.

The celestial show will see the lunar disc almost completely cast in shadow as it moves behind the Earth, reddening 99 percent of its face.

The spectacle was visible for all of North America and parts of South America from 0602 GMT Friday, and may later be seen in Polynesia, Australia and northeast Asia.

By 0750 GMT, sky-watchers with a cloud-free view in those regions saw the Moon half covered by the Earth's penumbra—the outer shadow.

Space scientists said Thursday that by 0845 GMT the Moon would appear red, with the most vivid coloring visible at peak eclipse 18 minutes later.

The dramatic red is caused by a phenomenon known as "Rayleigh scattering", where the shorter blue lightwaves from the Sun are dispersed by particles in the Earth's atmosphere.

Red lightwaves, which are longer, pass easily through these particles.

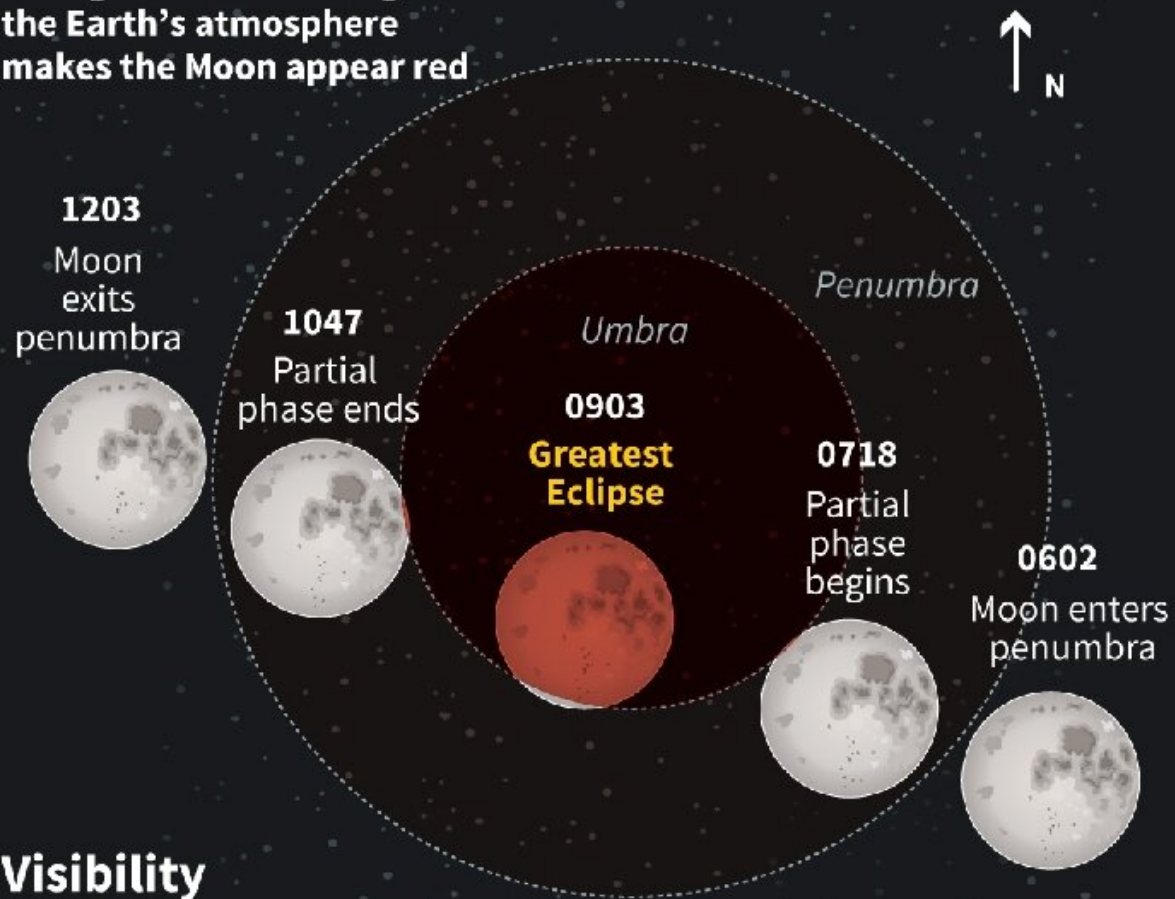
"The more dust or clouds in Earth's atmosphere during the eclipse, the redder the Moon will appear," a NASA website explained.

"It's as if all the world's sunrises and sunsets are projected onto the Moon."

# Almost total Lunar eclipse

November 19, 2021

Sunlight filtered through the Earth's atmosphere makes the Moon appear red



## Visibility



Source: NASA

Description of the partial lunar eclipse on November 19.

From the moment the eclipse began—when the Moon entered the Earth's shadow—to when it ends will take more than three hours and 28 minutes.

That is the longest partial eclipse since 1440—around the time Johannes Gutenberg invented his printing press—and won't be beaten until the far-off future of 2669.

But Moonwatchers won't have to wait that long for another show—there will be a longer total lunar eclipse on November 8 next year, NASA said.

Even better news for anyone wanting to watch is that no special equipment is necessary, unlike for solar eclipses.

Binoculars, telescopes or the naked eye will give a decent view of the spectacle—as long as there is good weather here on Earth.

After it passes into the umbra—the full shadow—the whole process will go into reverse as the Moon slithers out of the dark and carries on its endless journey around our planet.

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