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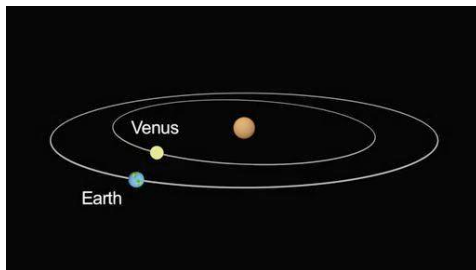
Last Look Until 2117: Transit of Venus

By JIE JENNY ZOU

Astronomers and stargazers will get a last chance to glimpse a rare astronomical event known as the transit of Venus starting on Tuesday.

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One of the rarest of celestial events will take place today—the next transit of Venus, when the planet will appear as a small, dark disk moving across the face of the sun. Jenny Zhou has details on Lunch Break. Photo: NASA.



Venus will slide between the Sun and Earth next week, the last such transit for 117 years. Video: Reuters

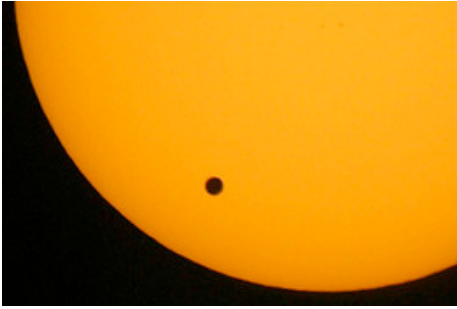
The phenomenon, which occurs when Venus's orbit brings the planet between Earth and the sun, takes place roughly twice a century—the last transit was on June 8, 2004—and won't happen again until 2117.

Unlike in a solar eclipse, in which the moon temporarily obscures the sun, Venus will appear as a small black dot passing across the sun in the daytime sky. Spectators are advised to wear special solar eyeglasses, or dark, polarized lenses such as welder's glasses, to prevent eye damage.

Richard Vondrak, deputy director of Solar System Exploration at NASA's Goddard Space Flight Center, said studying the event is "important in understanding our place in space." The transit of Venus was critical to the determination of Earth's distance from the sun, and thus the size of the solar system, Dr. Vondrak said. In the late 19th century, scientists finally ascertained the distance based on data from several transits, after a mathematician first proposed observing the transits back in 1663.

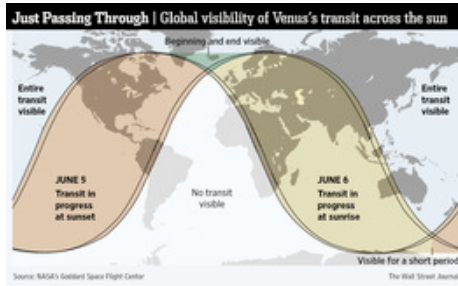
Jay M. Pasachoff, an astronomy professor at Williams College in Williamstown, Mass., said such events continue to provide scientists with insight into planets in Earth's solar system and beyond. Dr. Pasachoff, who will be in Maui, Hawaii, for the transit, will be studying it for clues to Venus's atmosphere as sunlight passes through the outer rim of the planet. He said scientists hope the same method can be used to study atmospheres on exoplanets, distant planets outside the solar system.

Viewers on the East Coast of the U.S. can watch the transit of Venus with their protective glasses from 6 p.m. EDT until sunset, Dr. Vondrak said. It can be viewed from most parts of



Associated Press

This June 8, 2004, file photo shows the transit of Venus, which occurs when the planet Venus passes between the Earth and the Sun, is pictured in Hong Kong.



the world, but not from Portugal or from big swaths of Spain, South America and Africa.

From many parts of Europe, people will be able to view the latter part of the 6½-hour transit after sunrise. Alaska and Hawaii are the only two states from which it will be possible to view the full transit.

Dr. Vondrak said people can watch the transit without special glasses by tuning in to NASA's live webcast of the event from Mauna Kea, Hawaii, starting at 5:45 p.m. EDT.

"So many people are missing the fact that it's a 21st-century topic," Dr. Pasachoff said. "It gives us a last chance in over 100 years to test ideas about distant planets."

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