

Quick Guide for the Upcoming Solar Eclipses

Information for Public Lands

eclipse™
2017 2024

SOUTHERN ILLINOIS
Eclipse Crossroads of America

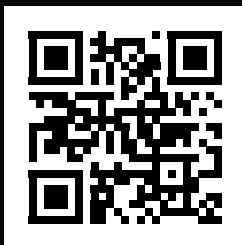
IMPORTANT DATES:

- **October 14, 2023** – An annular solar eclipse will occur along a line between Oregon and Texas. The rest of the U.S., including all of Illinois, will see a partial solar eclipse.
- **April 8, 2024** – A total solar eclipse will occur along a line between Texas and Maine, including Southern Illinois. The rest of the U.S. will see a partial solar eclipse.

This is the last total solar eclipse in the contiguous U.S. until August 12, 2045.

For more information and a complete schedule of activities, go to:

eclipse.siu.edu



Types of Solar Eclipses

- **Total solar eclipse:** The Sun and Moon align, and the Moon completely covers the disk of the Sun. Protective eyewear is required to view the event during the partial eclipse phases as the Moon slowly moves to cover the Sun and then slowly moves to uncover the Sun. Protective eyewear can be removed during the few minutes of totality when the Sun is completely covered. In order to view the total solar eclipse, the observer must be located inside the path of totality. This is the path that the Moon's shadow traces across the Earth. The closer the observer is to the centerline of the path of totality, the longer the total solar eclipse will last. Anyone outside the path of totality will view a partial solar eclipse.



Annular Solar Eclipse



Total Solar Eclipse

- **Annular solar eclipse:** The Sun and Moon align, but the Moon appears too small to cover the entire disk of the Sun, leaving a “ring of fire” around the Moon. This occurs because the Moon is at the farthest point of its orbit during alignment, causing it to appear slightly smaller than normal in the sky. Protective eyewear is required at all times to view an annular solar eclipse.
- **Partial solar eclipse:** The Sun and Moon are not in perfect alignment, and a portion of the Sun is visible behind the Moon. Protective eyewear is required to view a partial solar eclipse.



Partial Solar Eclipse



Experience a Total Solar Eclipse In-Person

All families are encouraged to get involved in this amazing experience. SIU is here to help make that happen.

- **Live Eclipse Show in Saluki Stadium:**
The public is invited to the SIU Carbondale campus to experience the excitement of the total solar eclipse. This show will include high-altitude balloon launches from the stadium field, live discussion of the eclipse events as they occur, and family-friendly science activities. Eclipse glasses will be provided. April 8, 2024, gates open at 11 am
Tickets are available
\$25 with chair, bleacher, and berm options.
- **Live streaming of the eclipse:**
If you are not in the path of totality, SIU will be offering a live-streaming event so you can watch the eclipse in real-time. This will include feeds from across the U.S. so weather will not affect your ability to experience this amazing phenomenon.
- **Consider organizing a watch party for your location.**
Anyone can observe an eclipse. They just need to follow proper eye safety.

The Eclipse Festival held on the SIU campus is 4 days of family-friendly events.

- Crossroads Eclipse Research Workshop - April 6
- Eclipse Saluki Con - April 6 & 7
- Crossroads Arts and Craft Fair - April 7 & 8
- Crossroads Astronomy, Science, and Technology Expo - April 7 & 8
- Eclipse Day at Saluki Stadium - April 8

In Carbondale:

Total Solar Eclipse begins 12:42 pm

Totality begins 1:59 pm

Totality lasts for 4 min, 9 sec

Eclipse Viewing

Viewing a solar eclipse can be an amazing, life-changing experience. All people should have the chance to view this amazing natural phenomenon in a way that is safe and healthy.

Organizations can order eclipse glasses. You will need to get your orders in early and be sure you get them from a reputable vendor. Sun glasses and welding shields are not safe solar viewing devices

Techniques to make inexpensive and safe solar viewers can be found at exploratorium.edu/eclipse/how-to-view-eclipse

Resources for Educators at eclipse.siu.edu

- Request an eclipse presenter to give a public talk.
- Request SIU's inflatable planetarium for an event
- Find book lists, activities, recommended websites, and other online resources. These lists will be continually updated as more material becomes available.

Eclipse Websites Of Interest:

- The 2023 "Ring of Fire": What it means and why it matters
rainbowsymphony.com/blogs/blog/the-2023-ring-of-fire-what-it-is-and-why-it-matters
- What are the Effects of a Solar Eclipse on Plants and Animals
rainbowsymphony.com/blogs/blog/what-are-the-effects-of-a-solar-eclipse-on-plants-animals
- Surprising Ways Animals React to Solar Eclipses
nationalgeographic.com/science/article/animals-react-total-solar-eclipse-august-space-science
- What do animals do during a solar eclipse?
snexplores.org/article/what-do-animals-do-during-solar-eclipse
- The Solar Eclipse Had a Spooky Effect on Nature
livescience.com/60207-how-animals-responded-to-the-eclipse.html

