Eclipse Messaging: Where, When, Why
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The All-American Total Solar Eclipse

On August 21, 2017, the Moon will pass in front of the Sun and create the first total solar eclipse visible from the continental United States since 1979. Every national park and monument in the U.S. will see at least a partial solar eclipse that day (see map on p.2). For those in the band running from Oregon to South Carolina the Sun and Moon will be perfectly aligned. When this happens, the Sun will be totally blocked out for situations up to nearly two and a half minutes. For park visitors across the country this period of totality begins at 10:21 a.m. EDT at John Day Fossil Beds Na. Mon., 11:34 a.m. EDT at Cades Cove Nat. Mon., 11:42 a.m. EDT at Great Smoky Mtns Nat. Park (at the partial phase of the eclipse may begin up to 160 minutes before and end 30 minutes after). All other parks at similar longitudes (located west and east) will see maximum partial eclipses at approximately these times.

For your safety never look directly at the Sun with the naked eye.

A total eclipse is one of nature’s grandest spectacles, but looking directly at the Sun is not safe except during the few brief moments when the Moon entirely blocks the Sun’s face and the eclipse is total. The only way to safely look directly at the Sun is through solar filters or “solar glasses” (see this card). Homemade filters or sunglasses are not safe for looking at the Sun. Always use solar filters before use if scratched or damaged, discard it. Always supervise children using solar filters. It is safe to remove your solar filter only when the Moon completely covers the Sun’s bright face and it suddenly becomes dark. As soon as the bright Sun begins to reappear, replace your solar viewer to glance at the remaining partial phases. By following these simple rules, you can safely enjoy the view and be rewarded with memories that last a lifetime. For more information visit NPS eclipse website at eclipse2017.nps.gov and the American Astronomy Society’s eclipse website at eclipse.aas.org.

Go for the Sun and stay for the stars!

Since solar eclipses occur when the Moon passes between the Earth and Sun, the nights before and after an eclipse appear unusually dark. This is the best time to see a star-filled sky at night. During August the summer Milky Way passes our horizon through an arc of over a hundred billion stars, arching directly overhead after sunset. Staring at the spectacular array of stars in the night sky is a quintessential experience for many national parks visitors. America’s national parks help protect our skies from artificial light pollution and are ideal places to see a stably starry sky.

For the All-American total solar eclipse, enjoy the wonder of our universe by day and night and learn more about how we are exploring the stars thanks to establishments like The Planetary Society and preserving our views of them thanks to the work of the National Park Service Night Sky program. Go for the Sun and stay for the stars!

Sustainable Outdoor Lighting Principles

The National Park Service is charged with protecting night skies along with other park resources by reducing light pollution through the use of sustainable outdoor lighting. In addition to visible aesthetics, good lighting conditions are important for wildlife habitat, cultural resources, wildlife species, and human health and safety. Park-friendly lighting also improves energy efficiency, reduces costs and provides opportunities for local economic growth through astronomy-based tourism. Astronomy-based activities are among the most popular visitor programs offered in parks and night sky festivals often attract thousands of participants.

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