

Why See a Total Eclipse of the Sun?

Howard L. Cohen

A chilling wall of darkness rushes from the west; ghostly shadows descend upon the earth. Stars and planets appear as the sky consumes the Sun. The brain panics as a black hole opens in the heavens, like an eerie cosmic eye bordered by crimson spikes and surrounded by a divine halo of white light. Nothing can prepare the mind for this. Science, magic and religion have finally come together

Most people have never observed a total eclipse of the Sun. This is especially true for the continental USA where none has occurred in almost 30 years and none will occur until 2017. The path of a total eclipse of the Sun is only visible in limited regions extending along a very narrow but long corridor often passing through vast stretches of ocean and sometimes unreachable land masses. These paths can also travel through regions famous for startling scenery, prolific wildlife or magnificent treasures both old and modern. Such eclipses provide an “excuse” for journeys to places that might otherwise go unseen.

Solar eclipses occur when the Moon passes between the Earth and Sun partially or completely obscuring the Sun from our view as part or all of the Moon's shadow sweeps over the Earth's surface. Solar eclipses come in several flavors (*partial, annular, total* or *hybrid*, an annular-total combination). When the axis of the Moon's shadow intersects the Earth's surface, the eclipse is central producing an annular, total or hybrid solar eclipse.

Total eclipses of the Sun produce one of nature's most awe-inspiring spectacles. The sight and feelings of such an eclipse cannot be adequately described in words, pictures or video, an event that often brings chills and tears once seen and felt.

“The foreboding approach of the Moon' deepening shadow cast down from the heavens; the startling appearance of a dazzling diamond ring set into the cradling arc of the lunar limb; the glorious splendid appearance of the Sun's white electrifying corona; the sinister black lunar disk surrounded by the reddish glow of the solar chromosphere; protruding flaming red, pointy tongue-like prominences; occasional blazing bright beads of light flashing out to a darkened sky sprinkled with bright planets and stars; an eerie, encircling and colorful sunset glow; and falling temperatures with a light wind joining to intensify an already shivering mind.”

In fact, it is nearly impossible to explain why one should see a total eclipse of the Sun to a person who has never seen this sight!

“What you see in an eclipse is entirely different from what you know.”

– Annie Dillard (1982)

Many people "think" they have seen a total eclipse of the Sun. But, most usually confuse a total solar eclipse with a partial or annular solar eclipse, or perhaps a total lunar eclipse. However, total eclipses of the Sun are unique events transcending most anything else one can perceive. To see the Sun turn into darkness during daylight is the closest we can come to seeing our familiar planet transformed into an alien world.

"Some people see a partial eclipse (of the Sun) . . . and wonder why others talk so much about a total eclipse. Seeing a partial eclipse and saying that you have seen an eclipse is like standing outside an opera house and saying that you have seen the opera. In both cases, you have missed the main event."

– Jay M. Pasachoff (1983)

Lunar eclipses and partial solar eclipses bear little relation to a total eclipse of the Sun. Annular eclipses too are a poor substitute for no experience can prepare the mind for totality. Total eclipses of the Sun are not only for science but also for our souls. During totality our spirits seem to revert to those of our early human ancestors as emotions become primeval feelings felt eons ago.

"I look up. Incredible! It is the eye of God. A perfectly black disk, ringed with bright spiky streamers that stretch out in all directions."

– Jack. B. Zirker (1980)

Witnessing these indescribable events are why so many become "eclipse chasers" after seeing their first total solar eclipse. Indeed, some even say that "one has not lived a full life until one has experienced a total eclipse of the Sun."

"From all the hills came screams . . . in the night sky was a tiny ring of light . . . there was no world . . . in the sky was something that should not be there . . . in the black sky was a ring of light."

– Annie Dillard (1982)

It is both unfortunate and fortunate that the Moon's shadow does not often come near one's home territory. In fact, a given location must often wait several centuries before having a total eclipse of the Sun. *This is unfortunate.* In fact, the last time a total solar eclipse took place in the continental USA was almost thirty years ago, in 1979 (Washington, Oregon, Idaho and Montana). The next for the USA is still years in the future (2017 August 21). So, for stay-at-home types, many more years must still pass before the Moon's shadow will race across the USA (maximum duration 2m40s in western Kentucky).

On the other hand, total solar eclipses also provide a pretext to travel to distant places that might never be visited. *And this is fortunate.* Not only do eclipses of the Sun stimulate travel, they also help decide where to journey in a world so full of wonderful destinations. So, when trying to plan your next perfect travel experience, consider letting a total solar eclipse be your guide. Your trip will then be truly extraordinary. ☼

“If you want to experience the ultimate in human emotion, curiosity, and imagination . . . then see a total eclipse of the Sun. Even if you are poor, starving, in hock, in trouble with the law, unbalanced, and totally addicted . . . see it anyway, it’s worth it!”

—Glenn Schneider (1977)

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