

ECLIPSE: Last total eclipse occurred in 1979

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At Camp Perry South, reached from Green Ridge Road, the duration of totality will be 1:57. However, Lake Billy Chinook locations are more easily accessible from the east and will probably be very busy on eclipse day.

There is an interactive map here: https://eclipse2017.nasa.gov/sites/default/files/interactive_map/index.html. On this map, you can click on a location and find the time and duration at any location in the U.S.

In this area, the total phase of the eclipse will start at about 10:19 a.m. First contact, when the partial phase of the eclipse begins, is at about 9:06 a.m. Whether you are at a location comfortably before the eclipse begins or have barely made it into the path of totality, you should start by observing the partial phase of the eclipse using safe eclipse viewing filters.

There are many sources of such viewing devices. Sisters Astronomy Club will have a display set up at community events between now and the eclipse date and they will have viewers available for a small donation.

The Oregon Observatory in Sunriver has them for a modest donation as well. Any of these devices and other materials specifically labeled for visual observation of the sun can be used. Number 14 welding goggle filters are safe for such observation, too.

DO NOT use improvised "filters" such as exposed film or smoked glass.

As soon as you can no longer see any of the bright surface of the sun through your filters, you should start observing the total phase with your naked eyes or through a pair of binoculars or a low-power telescope. If you have filters for your binoculars or telescope, take them off as soon as you can no longer see anything through them when looking at the sun.

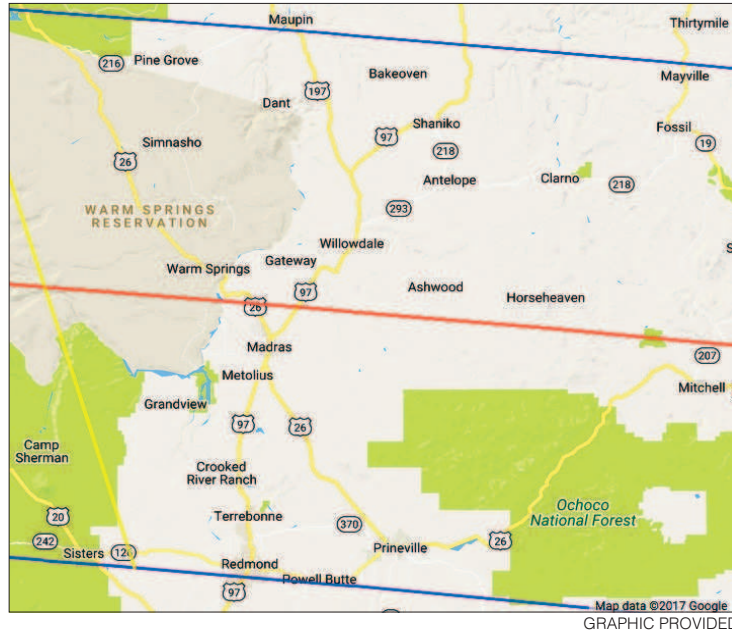
Why don't we get to see total solar eclipses more often?

The last total solar eclipse viewable from Oregon occurred in February, 1979, and the next one viewable within the United States will take place on April 8, 2024.

The plane defined by the earth's orbit around the sun is called the "ecliptic plane" because when the sun, earth and moon are aligned in this plane eclipses occur. The moon's orbit is inclined at 5 degrees to the ecliptic plane and therefore eclipses of the sun or moon do not occur every month.

If it were not so inclined, there would be a lunar and solar eclipse occurring every month: a lunar eclipse every full moon, a solar eclipse every new moon. If the moon's orbit didn't also go through some other regular variations, eclipse "seasons" would occur at the same time every year, with one or more partial or total eclipse occurring every six months when the moon's orbit carried it through the plane of the ecliptic.

Accurately accounting for the movements of celestial bodies that cause eclipses is so challenging that Isaac Newton once wrote to Edmond Halley that the theory of the motions of the moon made his head ache and



Map of the path of totality in Central Oregon: Blue lines indicate north and south limits of totality; red line is the center line where the duration is maximum.

kept him awake so often that he would think of it no more.

Sisters Astronomy Club has regular meetings on the third Tuesday of the month, July 18 and August 15 at 7 p.m. in the Sisters Park & Recreation District Coffield Center. The club holds public star observing programs, Stars over Sisters, at SPRD and the SHS parking lot on July 15, 9 p.m. and August 19, 8:30 p.m. Any of the events will be opportunities for the public to learn more about the stars and celestial events such as the eclipse. The website www.sistersastronomyclub.org has many links to information about the upcoming eclipse and other sites for those interested in astronomy and the night sky. Current astronomical news is regularly posted on the Facebook page www.facebook.com/sistersastronomy. You may contact the authors with questions about the eclipse

or any other questions about astronomy: drjhammond@oldshoepress.com; rthorkildson@bendbroadband.com.

GRANT: Medical tattoos have cosmetic benefits for patients

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include vocational, technical, artistic or general fields of study. Funds are available to qualified residents within the Sisters area regardless of age, gender, disability, marital status, race or current occupation. Kiwanis does not set limitations on potential use of the award.

COF applications are available on the Kiwanis website at www.sisterskiwanis.org/about-us/career-opportunity-fund, at the Sisters Habitat for Humanity office, from the Family Access Network, or by calling 541-410-2870.

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