THE ATMOSPHERICRESERVOIR
Examining the Atmosphere and Atmospheric Resource Management

APRIL 8TH TOTAL SOLAR ECLIPSE

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Within your lifetime, there are only a few opportunities to experience a total solar eclipse here in the U.S. Next month, on April 8, the moon will pass between the Earth and the Sun to provide observers between Texas and Maine a few minutes of dark sky during the afternoon hours. Many fascinating things occur during a total solar eclipse, including a noticeable drop in temperature of a few degrees or more depending on the location. Also, plants and animals are confused as to whether or not its suddenly nighttime, and nocturnal animals are drawn into activity.

The difference between a solar and lunar eclipse is that during a lunar eclipse, the Earth passes between the Sun and the Moon and "shadows" the sunlight from the Moon's surface. Both types of eclipses can be either partial or total and partial eclipses are much more common because the positions of the Sun, Moon, and Earth don't have to line up so precisely like they do for a total eclipse.

The next total solar eclipse to touch U.S. soil won't occur until August 23, 2044. This eclipse will begin over Greenland, pass over the North Pole into Canada and travel southward to reach western North Dakota just before sunset. Strangely enough, the very next year another total solar eclipse will begin over the Pacific Ocean and then make a path from California southeastward through Florida and the Caribbean.

If you can't travel southeastward to an area of total eclipse this April 8, North Dakotans will still have partial views between 45 percent (NW corner) and 65 percent (SE corner) if clouds don't interfere. Make sure to use special eye protection when viewing the eclipse (even if you're only viewing a smaller percentage of the event).

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