

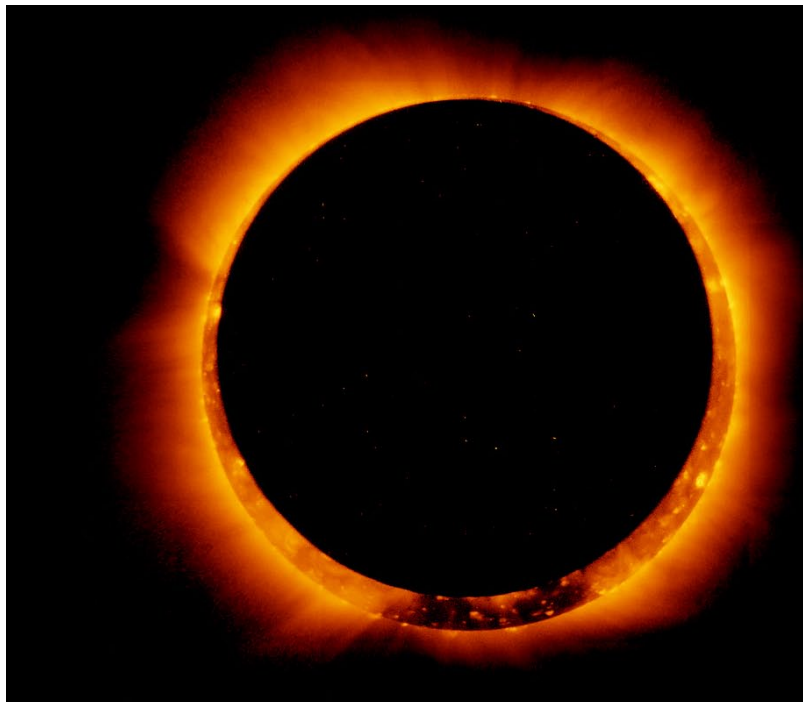
# Annular Solar Eclipse

National Park Service  
U.S. Department of the Interior

Natural Sounds & Night Skies Division  
Natural Resource Stewardship & Science



## May 20, 2012



In the hours before sunset on May 20, 2012, Earth's moon will cross in front of the sun. The resulting shadow that falls upon the Earth from this solar eclipse will race across the Western United States at over 1000 mph.

Annular Solar Eclipse. Image credit: Hinode/XRT

### An Uncommon Celestial Event

Visitors at national parks along the central path of the solar eclipse may witness a “ring of fire” as the moon covers 95 percent of the sun. This bullseye in the sky is an uncommon celestial event, prized by photographers, astronomy buffs and nature lovers.

Although our nearest star, the sun, is 400 times larger than the moon, both appear to be nearly the same size in the sky. However, the moon's orbit isn't a perfect circle around the Earth. It swings near and far so at times the moon will appear somewhat larger or smaller. The relative size of the

moon and the track of the shadow across the Earth determine what kind of eclipse you will see. *Partial solar eclipses* (where the moon “takes a bite” out of the sun) are somewhat common, occurring about twice a year somewhere on the globe. *Total solar eclipses*, when the moon completely blocks out the sun for a few minutes, are less common. And when the moon is swinging far in its orbit and appears smaller, it isn't large enough to completely blot out the sun, resulting in an *annular eclipse*. The last time an annular solar eclipse was seen in the contiguous U.S. was 1994.

### Viewing Tips

There are more than 150 national parks in the Western U.S. and Alaska from which to view the eclipse (see map on reverse). You will need a clear view of the western horizon and a sky free of thick clouds to get the best view.

#### **Eye protection is required for viewing the eclipse and sunglasses are not adequate!**

Looking directly at the sun, using an unfiltered telescope, or even a camera viewfinder can permanently damage your eyes! Don't take chances with your sight.

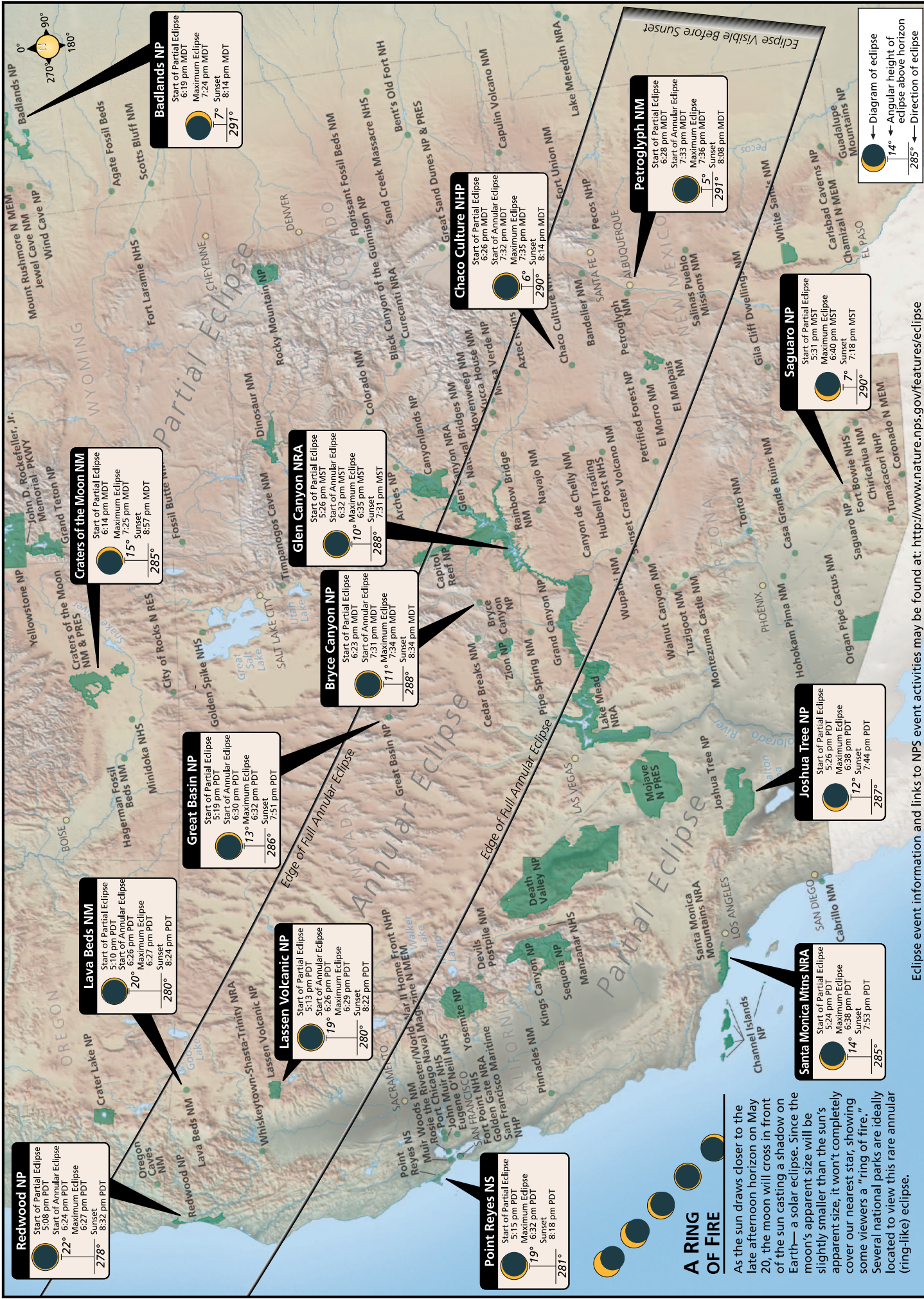
Use solar viewing glasses to protect your vision. Solar viewing glasses are safe, inexpensive and

widely available. Many parks along the eclipse path will feature eclipse ranger programs and may have special viewers and solar telescopes to give you the best view.

Several days after this event on June 5th, viewers in most of the United States can witness the transit of Venus. The tiny silhouette of the planet Venus will cross the face of the sun; an event that only happens twice in a century.

To learn more about the science of eclipses, where to find a special program in a national park, and more viewing tips, see — <http://www.nature.nps.gov/features/eclipse>





Eclipse event information and links to NPS event activities may be found at: <http://www.nature.nps.gov/features/eclipse>

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## A RING OF FIRE

As the sun draws closer to the late afternoon horizon on May 20, the moon will cross in front of the sun casting a shadow on Earth—a solar eclipse. Since the moon's apparent size will be slightly smaller than the sun's apparent size, it won't completely cover our nearest star, showing some viewers a "ring of fire." Several national parks are ideally located to view this rare annular (ring-like) eclipse.