

During the 2017 total solar eclipse, the sun and moon will almost be on top of Regulus, the brightest star in the constellation Leo. During totality, observers can see **Regulus, Mercury, Jupiter, Mars, Venus** and the **sun**.





**Bookmark Pinhole Projector:**  
With your back toward the sun, hold this bookmark pinhole projector 2 to 3 feet above the ground. Allow the sun to project an inverted image of the partial eclipse (through the pinhole) onto a sheet of white paper on the ground. Adjust the distance of the pinhole to the ground until you see the clearest image possible.

**Warning:** Never look directly at the sun without proper eye protection. You can seriously injure your eyes.



In this series of stills from 2013, the eclipse sequence runs from right to left. The center image shows totality; on either side are the second contact (right) and third contact (left) diamond rings that mark the beginning and end of totality, respectively. Credit: Rick Fienberg, TravelQuest International and Wilderness Travel

National Aeronautics and Space Administration

## PROMINENCES

Structures in the corona consisting of cool plasma supported by magnetic fields. Prominences are bright structures when seen over the solar limb, but appear dark when seen against the bright solar disk. Prominences seen on the disk are also known as filaments.

## CORONA

The outermost layer of the solar atmosphere. The corona consists of a highly rarefied plasma with a temperature greater than 1 million kelvin. It is visible to the naked eye during a solar eclipse.

## POLAR PLUMES

Bright structures of outflowing gas that occur along magnetic field lines in coronal holes. These field lines extend into the solar system. Although plumes usually occur at the poles, they can appear anywhere there is a coronal hole.

## HELMET STREAMERS

Large caplike coronal structures with long pointed peaks that usually overlie sunspots and active regions. We often find a prominence or filament lying at the base of these structures.

## CORONAL LOOPS

Found around sunspots and in active regions. These structures are associated with the closed magnetic field lines, which connect magnetic regions on the solar surface.

Credit: S. Habbal, M. Druckmüller and P. Aniol

**EXPERIENCE  
THE 2017 ECLIPSE  
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<http://eclipse2017.nasa.gov>

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