



NASA HELIOPHYSICS

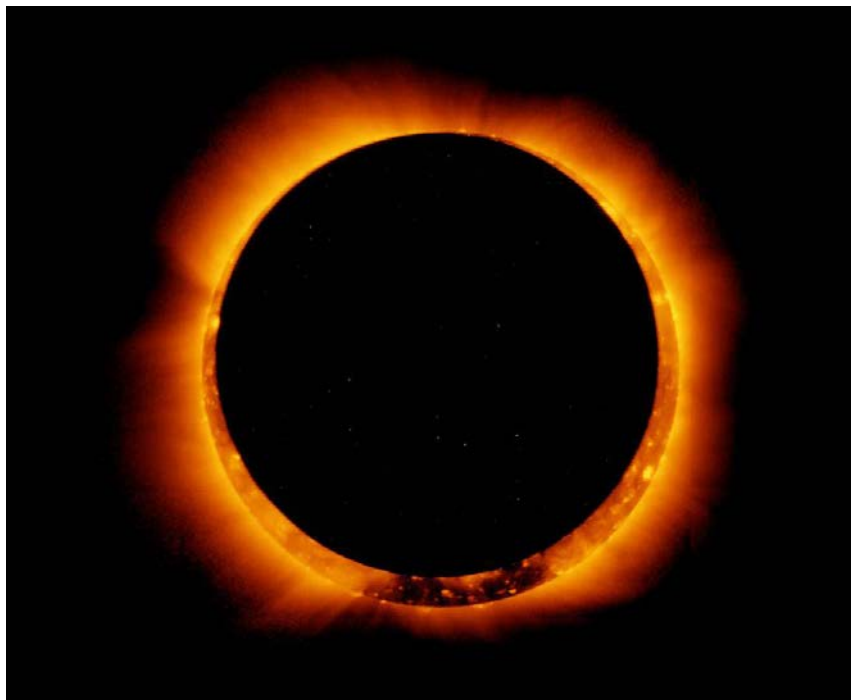
HINODE

Focusing on a Magnetic Sun

Hinode explores the magnetic fields of the Sun in order to improve understanding of what powers the solar atmosphere and drives solar eruptions. Hinode’s Solar Optical Telescope is the first spaceborne instrument to measure the strength and direction of the Sun’s magnetic field on the Sun’s surface, the photosphere. Combined with two other Hinode instruments, the EUV imaging spectrometer, or EIS, and the X-ray/EUV telescope, or XRT, the mission is designed to understand the causes of eruptions in the solar atmosphere and relate those eruptions to the intense heating of the corona and the mechanisms that drive the constant outflow of solar radiation, the solar wind.

Hinode lies in a Sun-synchronous orbit around Earth at an altitude of nearly 400 miles (a little under 650 km). Its orbit allows Hinode to observe the Sun continuously for nine months at a time. During the summer (in the northern hemisphere) Hinode experiences an “eclipse season” during which the Sun is eclipsed by Earth—as opposed to the Moon as will happen on Aug. 21—for a maximum of ten minutes in each 98-minute orbit.

Led by the Japan Aerospace Exploration Agency, or JAXA, the Hinode mission is a collaboration between the space agencies of Japan, the United States, the United Kingdom and Europe.



On Jan. 4, 2016, the Hinode satellite captured this breathtaking image of an annular solar eclipse. An annular eclipse occurs when the Moon, slightly more distant from Earth than on average, moves directly between Earth and the Sun, thus appearing slightly smaller to observers’ eyes. Credit: Hinode/XRT

ADDITIONAL RESOURCES:

Mission Project Home Page:
<https://hinode.msfc.nasa.gov/>

Hinode News:
<http://nasa.gov/hinode>

Hinode Data:
https://hinode.msfc.nasa.gov/data_archive.html