



EXPERIENCE THE 2017 ECLIPSE ACROSS AMERICA THROUGH THE EYES OF NASA

<http://eclipse2017.nasa.gov>

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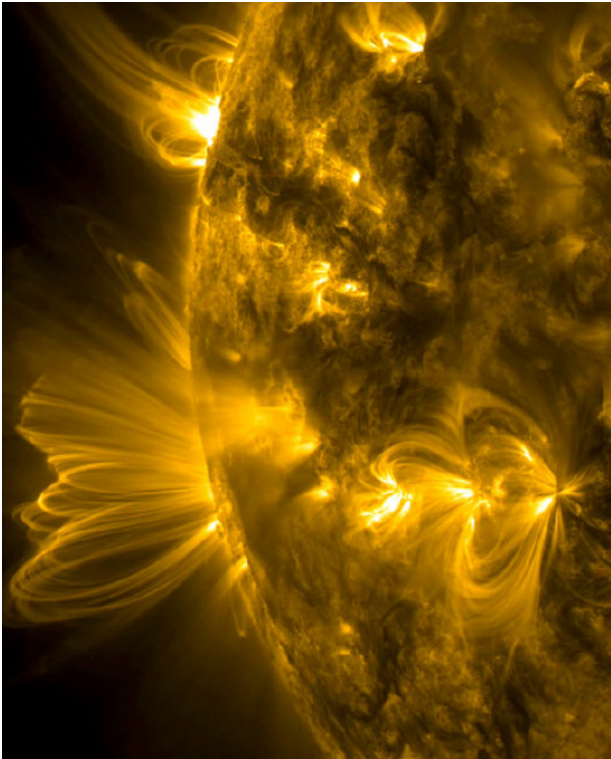


Credit: Rick Fienberg, TravelQuest International and Wilderness Travel



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

ROSETTA STONE EXPERIMENTS



Overview

During a solar eclipse, the Moon blocks out the bright light of the body of the Sun, making the wispy, outermost layer of the atmosphere, the corona, clearly visible. The corona is the hottest layer of the Sun's atmosphere, but the fundamental physics that govern the region are not well understood. A team, led by Philip Judge of the High Altitude Observatory in Boulder, Colorado, will use new instruments to study the magnetic field structure of the corona by imaging this atmospheric layer during the eclipse.

Eclipse Science

The instruments will observe the corona to see fingerprints left by the magnetic field in visible and near-infrared wavelengths from a mountaintop near Casper, Wyoming. The research will enhance our understanding of how the Sun generates space weather, which can affect satellites in orbit around Earth. The instruments will simultaneously test new technology that can be compared to existing instrumentation, like NASA's Solar Dynamics Observatory and JAXA/NASA's Hinode, with the potential to be used in future missions. The results from this instrument will complement data from an airborne study imaging the corona in the infrared, as well as another ground-based infrared study.

ADDITIONAL RESOURCES: The Sun-Earth Connection: <https://nasa.gov/sunearth>
Solar Dynamics Observatory: <https://nasa.gov/sdo>
Hinode: <https://nasa.gov/hinode>