

EXPERIENCE ^{THE} 2017 ECLIPSE ACROSS AMERICA
THROUGH THE EYES OF NASA
<http://eclipse2017.nasa.gov>

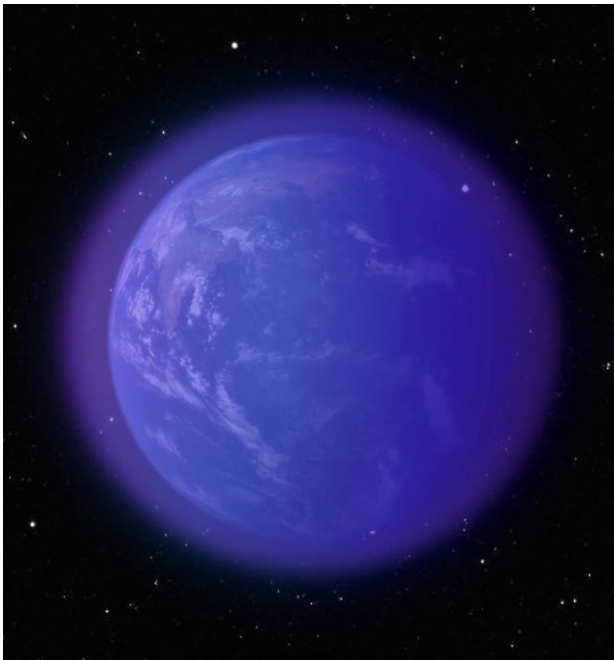
AUGUST 21, 2017



Credit: Rick Fienberg, TravelQuest International and Wilderness Travel

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

IONIZATION IN THE IONOSPHERE



Overview

The upper reaches of Earth's atmosphere—a region ionized by solar and cosmic radiation—is a super-highway for long-range, very low frequency, or VLF, telecommunications transmissions. Known as the ionosphere, this layer of the atmosphere is used for sending VLF transmissions all around the world. A research project, led by Bob Marshall at the University of Colorado Boulder, will use the unique conditions created by the eclipse to study the ionosphere in hopes of improving models of the region's dynamics.

Eclipse Science

Radio wave transmissions sent from Lamoure, North Dakota, will be monitored at receiving stations across the eclipse path in Colorado and Utah. The data will be compared with several space-based missions, such as NOAA's Geostationary Operational Environmental Satellite, NASA's Solar Dynamics Observatory, and NASA's Ramaty High Energy Solar Spectroscopic Imager, to precisely characterize the effect of the Sun's radiation on the ionosphere.

ADDITIONAL RESOURCES: Mission Project Home Pages: GOES: <http://www.goes-r.gov>
SDO: <https://sdo.gsfc.nasa.gov/>
RHESSI: <https://hesperia.gsfc.nasa.gov>