

TOTAL SOLAR ECLIPSE ON AUGUST 21, 2017



National Aeronautics and Space Administration

This unique map shows the path of the moon's umbral shadow – in which the sun will be completely obscured by the moon – during the total solar eclipse of August 21, 2017, as well as the fraction of the sun's area covered by the moon outside the path of totality. The lunar shadow enters the United States near Lincoln City, Oregon, at 9:05 a.m. PDT. Totality begins in the United States in Lincoln City, Oregon, at 10:16 a.m. PDT. The total eclipse will end in Charleston, South Carolina, at 2:48 p.m. EDT. The lunar shadow leaves the United States at 4:09 p.m. EDT. A partial eclipse will be visible throughout the United States.

Lunar topography data from NASA's Lunar Reconnaissance Orbiter and the Japan Aerospace Exploration Agency's SELENE lunar orbiter were used to precisely calculate the location of the moon's shadow. Land shading is based on a global mosaic of images from NASA's Moderate Resolution Imaging Spectroradiometer, and elevations are based on data from NASA's Shuttle Radar Topography Mission. Planetary positions are from NASA's Jet Propulsion Laboratory Development Ephemeris 421.

Credit: NASA's Scientific Visualization Studio

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

www.nasa.gov

NP-2016-11-525-GSFC

10:10
PDT

10:20
PDT

11:30
MDT

11:40
MDT

11:50
MDT

1:00
CDT

1:10
CDT

1:20
CDT

1:30
CDT

2:40
EDT

2:50
EDT

25%

50%

50%

75%

90%

90%

75%

