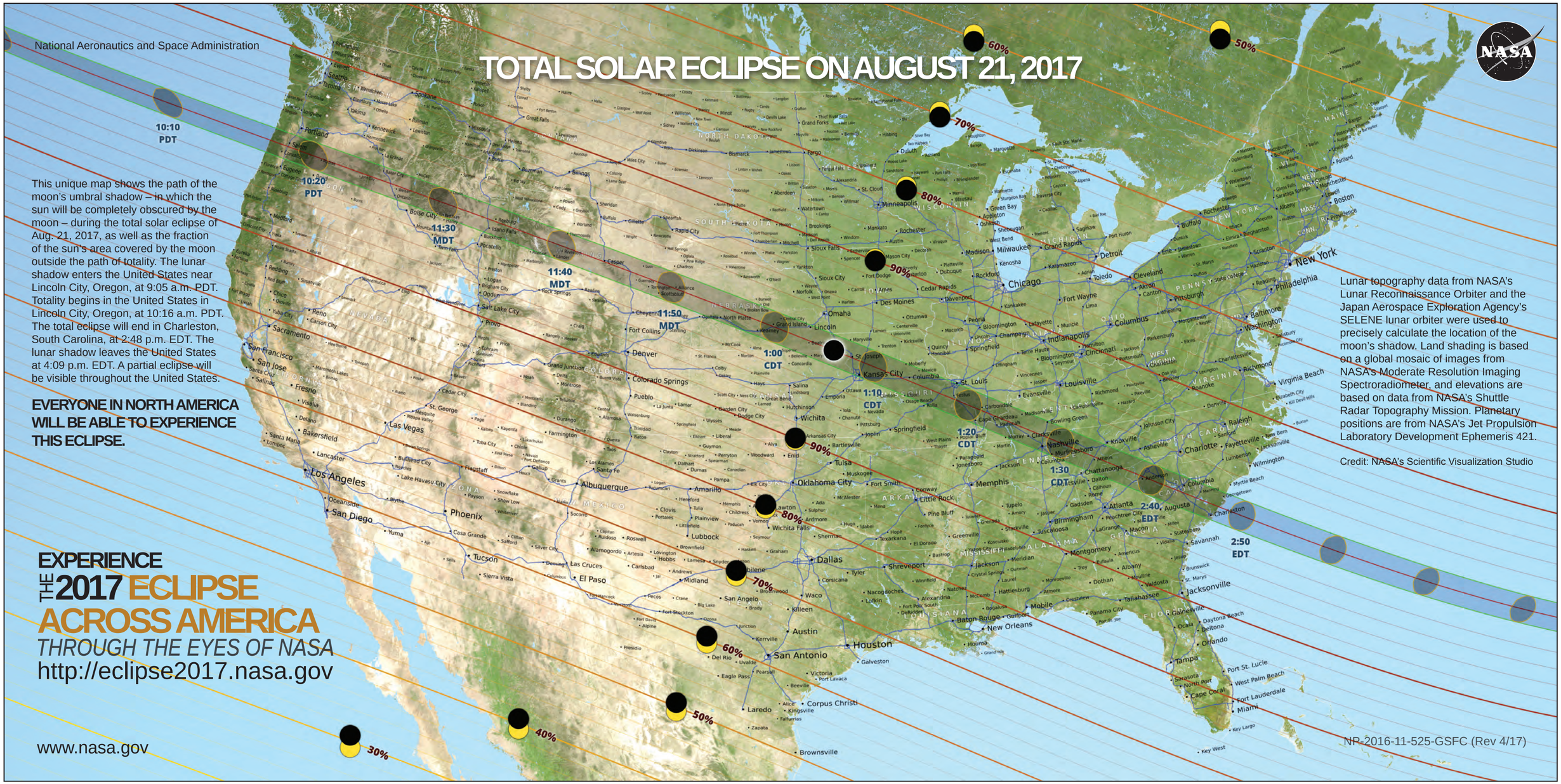
National Aeronautics and Space Administration

TOTAL SOLAR ECLIPSE ON AUGUST 21, 2017



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 Aug. 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.

EVERYONE IN NORTH AMERICA WILL BE ABLE TO EXPERIENCE THIS ECLIPSE.

EXPERIENCE THE 2017 ECLIPSE ACROSS AMERICA

THROUGH THE EYES OF NASA

http://eclipse2017.nasa.gov

www.nasa.gov

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

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