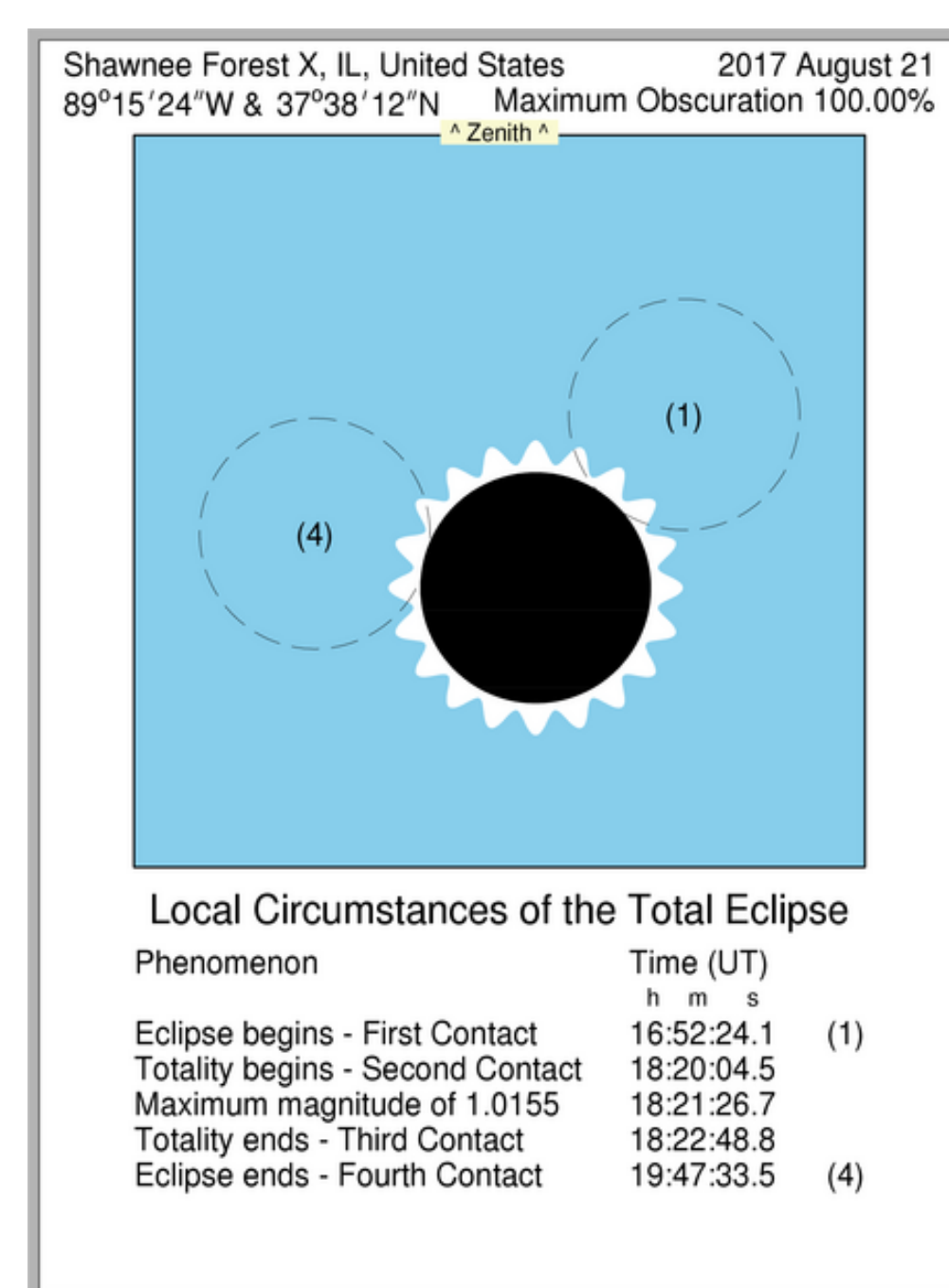
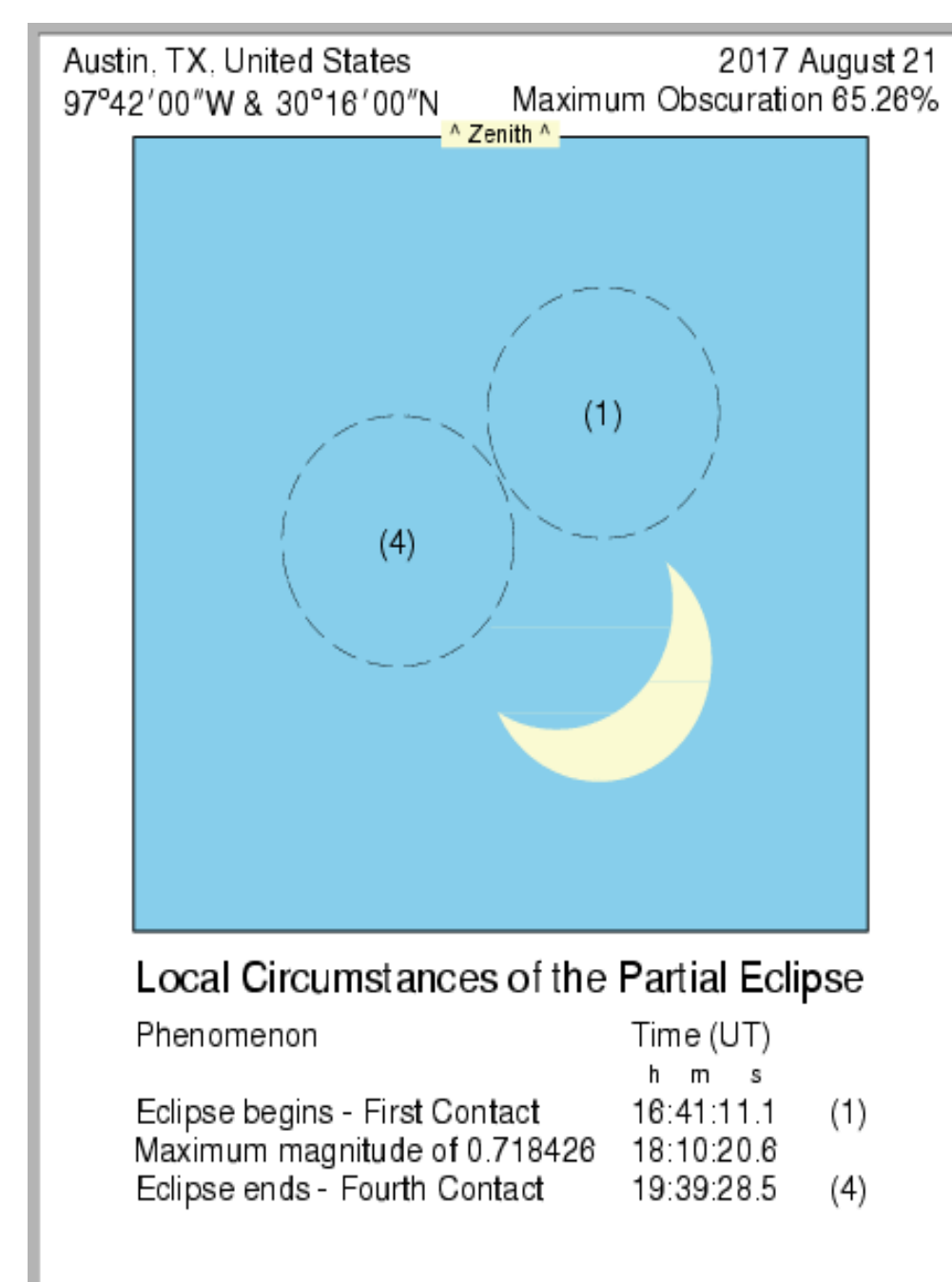
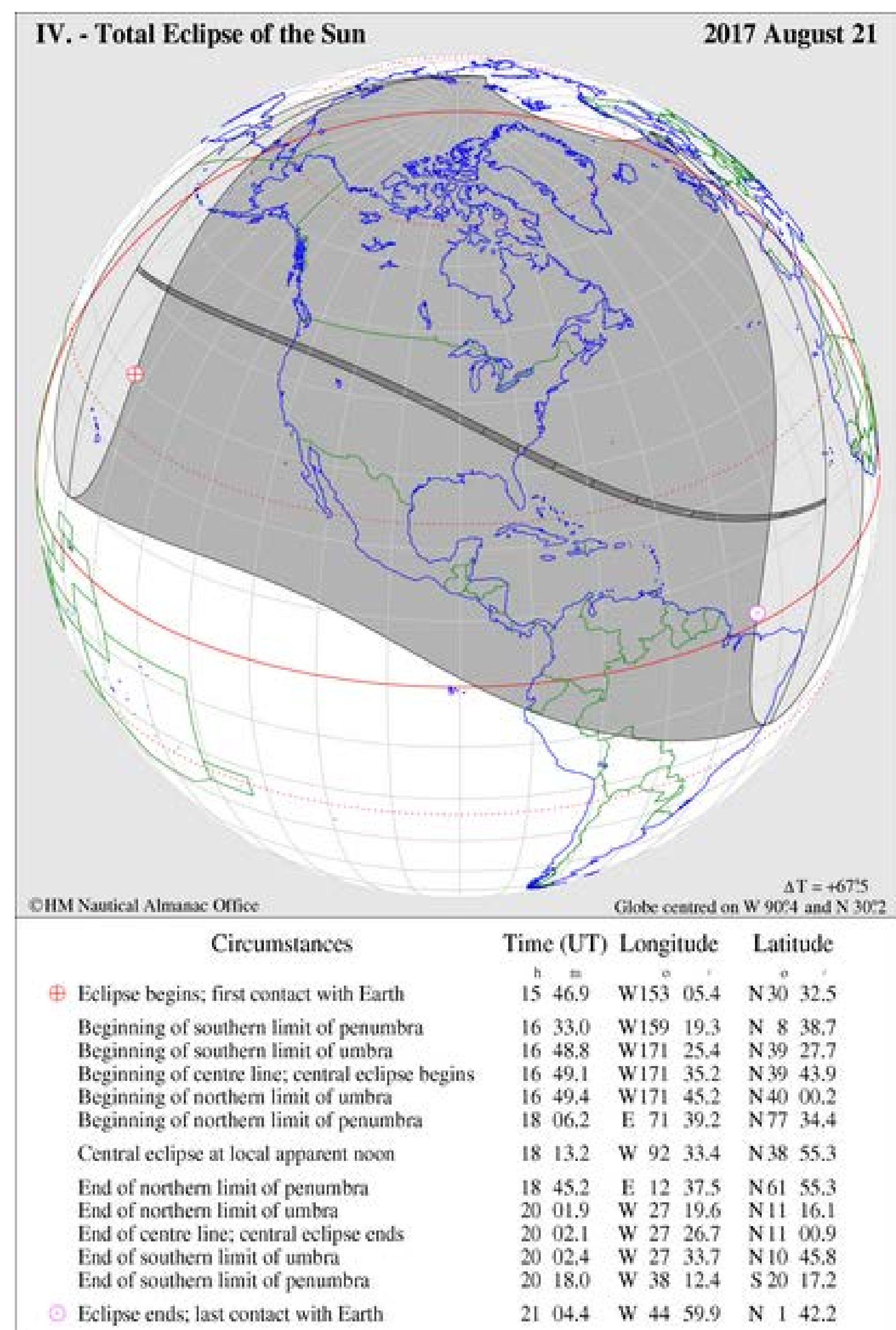




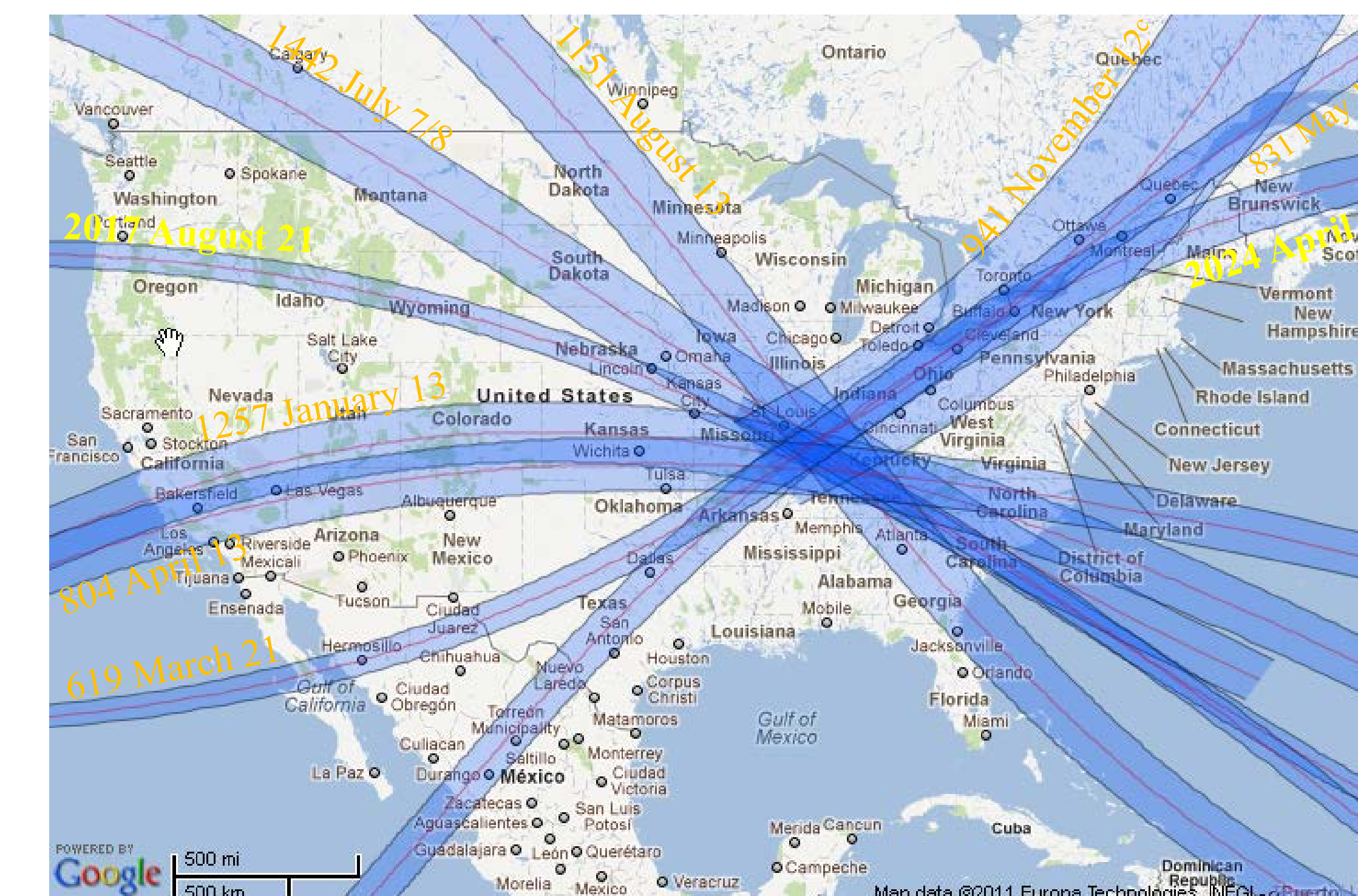
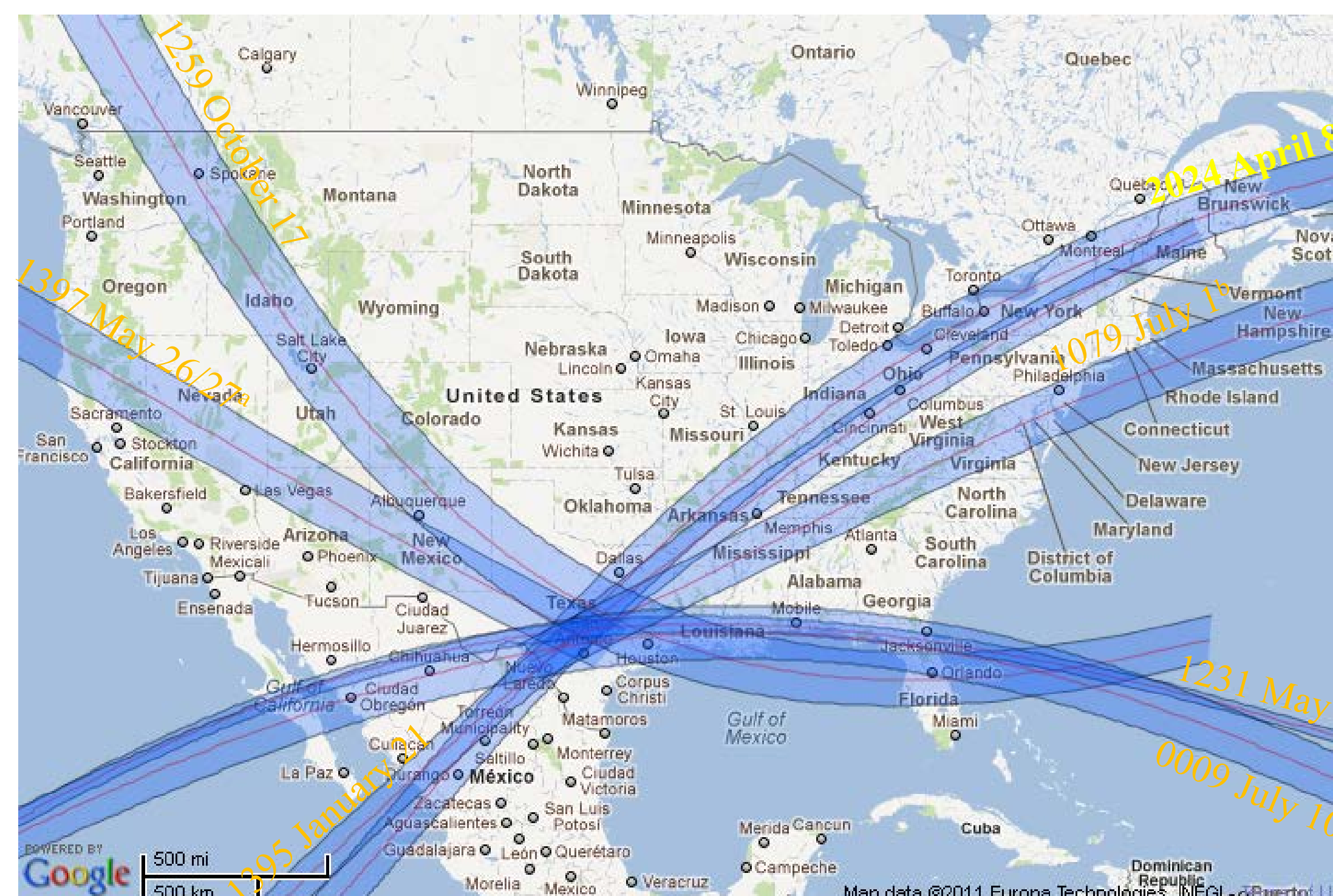
A Tale of Two Sites: Planning Ahead for August 2017

Jennifer Lynn Bartlett (U. S. Naval Observatory) & Steve Bell (HM Nautical Almanac Office)

2017 August 21—Total Solar Eclipse



Total Solar Eclipses, AD 1–2100



Notes: ^atotality just before sunset
^btotality just after sunrise

Visible from Austin

Visible from Shawnee National Forest

Note: ^atotality just after sunrise

2024 April 8: 1st total solar eclipse over Austin since Texas joined Union

2017 August 21 & 2024 April 8: 7 minutes of totality in 7 years

Abstract

On August 21, 2017, most of the United States will experience a partial solar eclipse with a total solar eclipse visible from a narrow band, approximately 73 mi (118 km) wide, crossing twelve states. The Shawnee National Forest, Illinois falls within this favored region but Austin, Texas does not. While both locations lie along the April 8, 2024, path of totality, the Forest is still better positioned.

On average, 3 solar eclipse tracks race across the globe every 2 years; in rare years, as many as 5 solar eclipses, including partial ones, can occur. Because each individual track covers less than 1% of the Earth's surface, an average of 375 years lapse between total solar eclipses at a particular site.

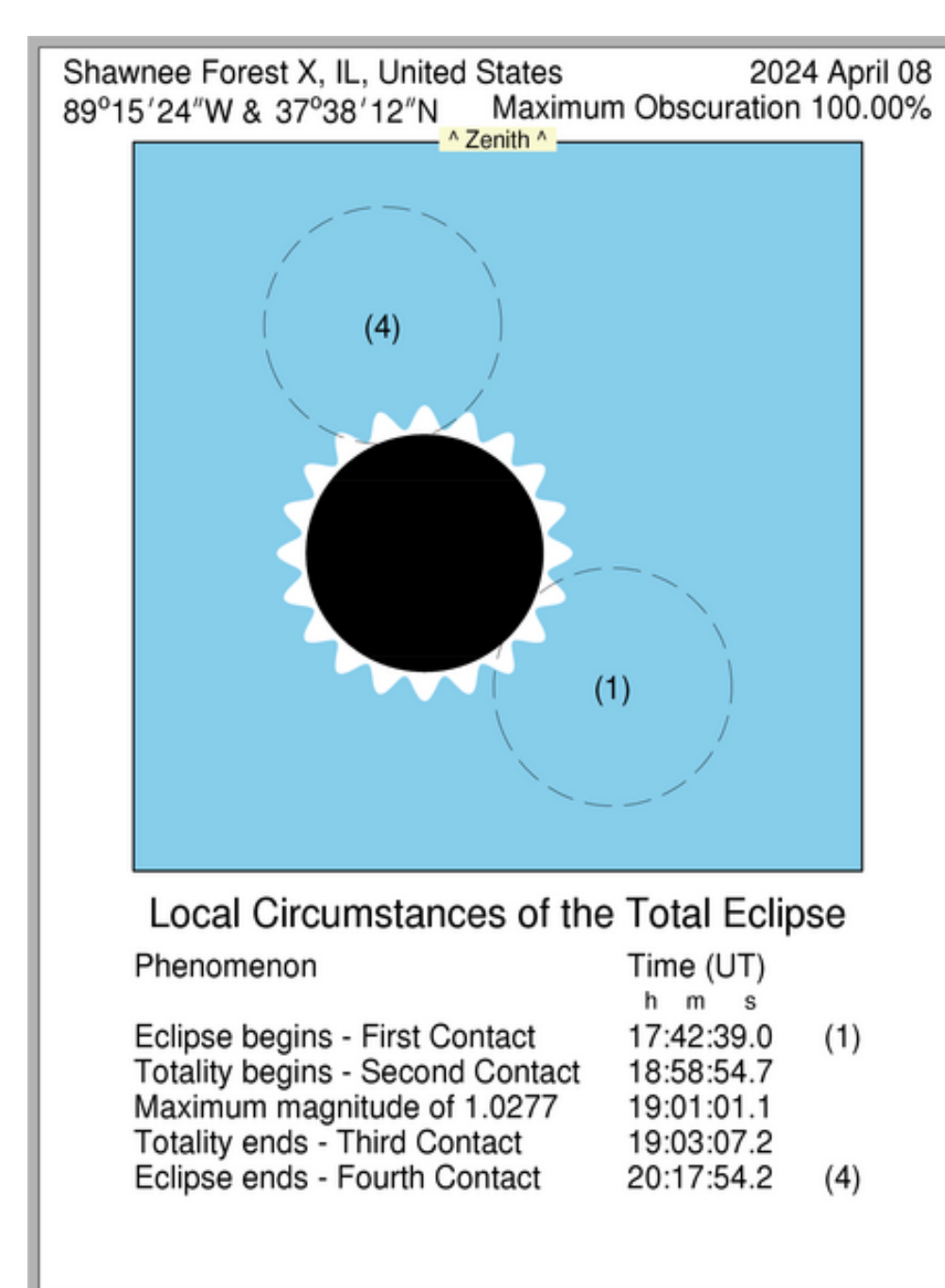
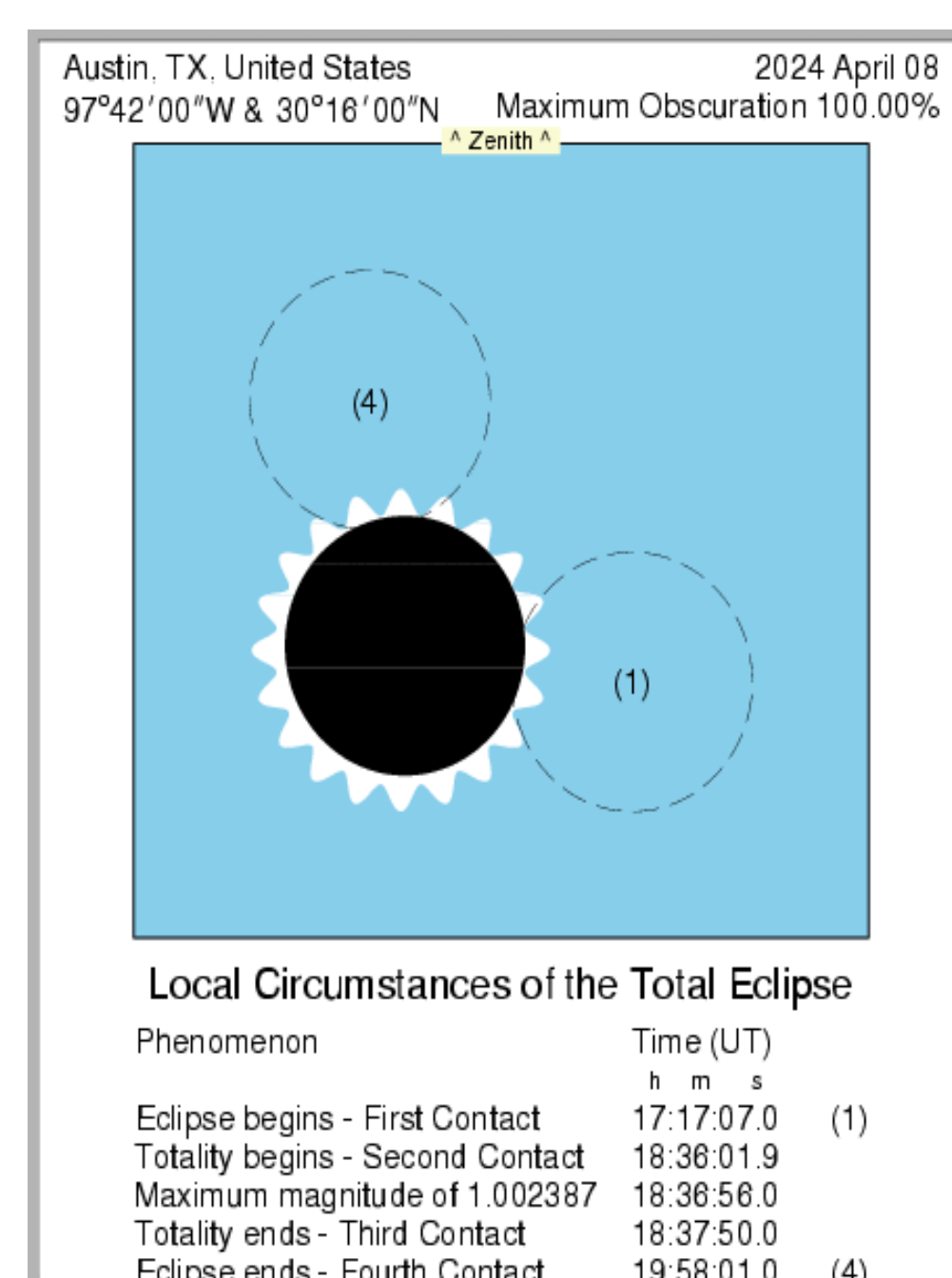
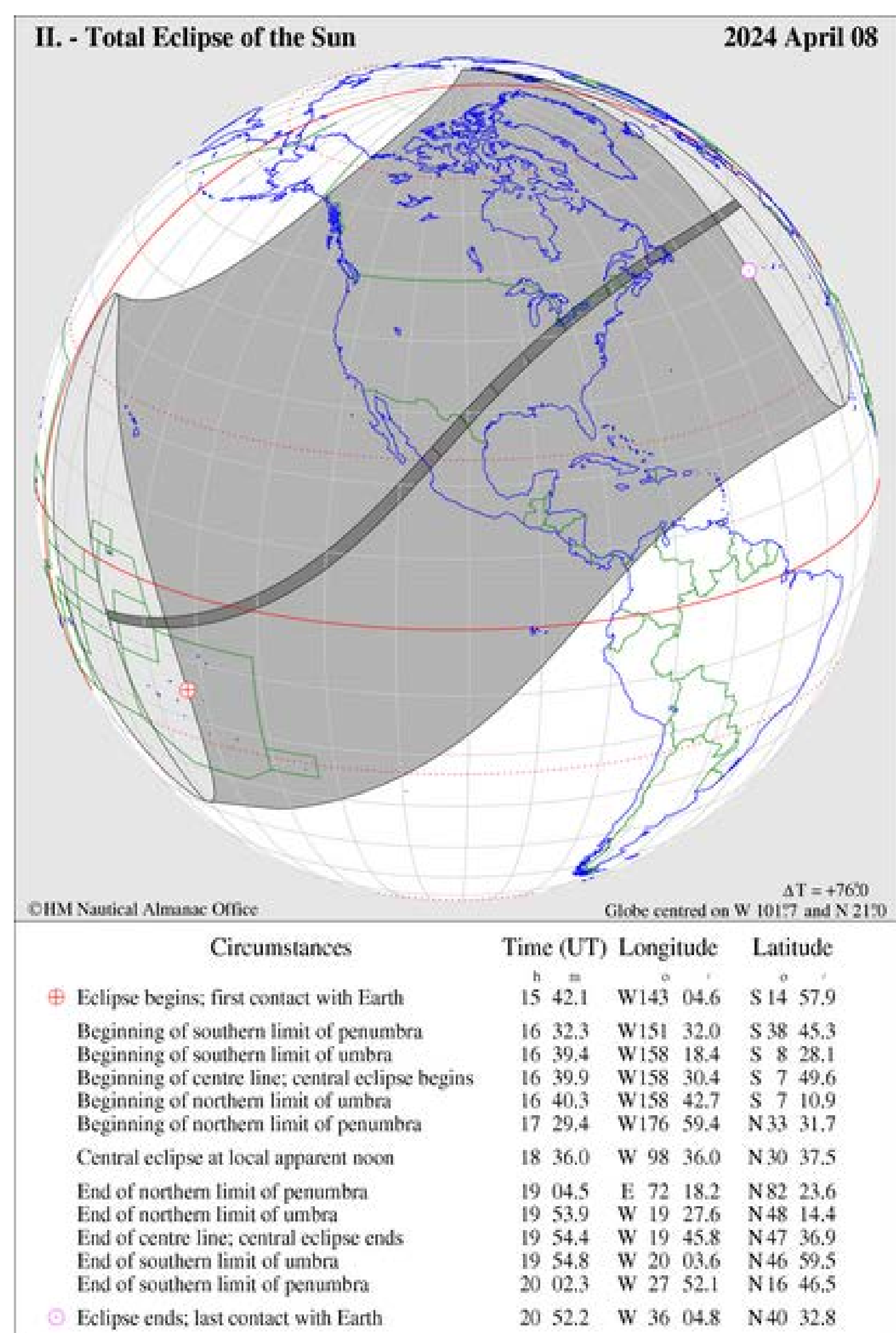
In 2017, the longest duration of totality for the eclipse will darken the Shawnee National Forest (37°34.5' N, 89°7.3' W) for 2 min. 44 sec. In 2024, totality will last 4 min. 13 sec. over the Forest. Although July 7, 1442, was the last total solar eclipse here, an annular solar eclipse was visible in 1865.

In 2017, Austin will only experience a partial eclipse with ~65% of the Sun obscured. In 2024, totality will darken the state capital for 1 min. 48 sec. The last total solar eclipse here occurred on May 26, 1397, which was immediately preceded by another on January 21, 1395. More recently, two annular solar eclipses were visible during the 20th century.

The August and April weather at both sites is generally favorable; while clouds and rain are possible, neither is a significant threat.

What your outreach program will see and do during these eclipses depends heavily on where you are, or can go. For those impatiently awaiting their next eclipse fix, a partially eclipsed sun will set over both sites on May 20, 2012.

2024 April 8—Total Solar Eclipse



Long-Range Forecasts

Time	Site	Sunny (%)	Partly Cloudy (%)	Cloudy (%)	Precipitation (%)	Ave. High (°C/°F)	Ave. Low (°C/°F)	Dew Point (°C/°F)	Wind Speed (km hr ⁻¹ /mph)
Late August	Austin	67	31	2	16	34/94	23/74	22/72	19/12
August	Shawnee Nat. Forest	65	26	9	25	32/89	21/69	22/71	19/12
Early April	Austin	37	29	34	25	22/71	10/50	11/52	26/16
April	Shawnee Nat. Forest	50	26	24	33	13/55	4/39	4/40	27/17

For More Information

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Visit the USNO Eclipse Portal:
http://www.eclipse.org.uk/eclib/query_usno.cgi

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Acknowledgements

M. R. McCorvie (Heritage Program Leader, Shawnee National Forest) & M. White (Head Librarian, Physics Mathematics Astronomy Library, University of Texas at Austin) graciously provided data for this research.