

# **FUTURE TOTAL ECLIPSES**

# **Future Total Solar Eclipses**

We also include eclipses that are *annular*—where the Moon is directly in front of the Sun, but doesn't fully cover it—leaving a ring of light around the dark Moon's edges)

#### **Future Total Solar Eclipses**

Date	Type of Eclipse	Location on Earth <sup>[1]</sup>
September 1, 2016	Annular	S Atlantic Ocean, C Africa, Madagascar, Indian Ocean
February 26, 2017	Annular	SW Africa, S tip of South America
August 21, 2017	Total	U.S. and oceans on either side
July 2, 2019	Total	SW South America, Pacific Ocean
December 26, 2019	Annular	Saudi Arabia, S India, Malaysia
June 21, 2020	Annular	(very short) C Africa, Pakistan, India, China
December 14, 2020	Total	Chile, Argentina, and oceans on either side
June 10, 2021	Annular	N Canada, Greenland
December 4, 2021	Total	Only in Antarctica
April 20, 2023	Total <sup>[2]</sup>	Mostly in Indian and Pacific oceans, Indonesia
October 14, 2023	Annular	OR, NV, UT, NM, TX, C America, Colombia, Brazil
April 8, 2024	Total	N Mexico, U.S. (TX to ME), SE Canada and oceans on either side
October 2, 2024	Annular	S Chile, S Argentina, and oceans on either side
February 17, 2026	Annular	Only in Antarctica
August 12, 2026	Total	Greenland, Iceland, Spain
February 6, 2027	Annular	S Pacific, Argentina, Chile, Uruguay, S Atlantic
August 2, 2027	Total	Spain, Morocco, Egypt, Saudi Arabia, Yemen, Arabian Sea

### Table H1

<sup>1</sup> Remember that a total or annular eclipse is only visible on a narrow track. The same eclipse will be partial over a much larger area, but partial eclipses are not as spectacular as total ones.

<sup>2</sup> This is a so-called hybrid eclipse, which is total in some places and annular in others.

#### **Future Total Solar Eclipses**

Date	Type of Eclipse	Location on Earth
January 26, 2028	Annular	Ecuador, Peru, Brazil, North Atlantic Ocean, Portugal, Spain
July 22, 2028	Total	Indian Ocean, Australia, New Zealand, South Pacific Ocean

Table H1

# **Future Total Lunar Eclipses**

### **Future Total Lunar Eclipses**

Date	Location on Earth
January 31, 2018	Asia, Australia, W North America
July 27, 2018	S America, Asia, Africa, Australia, Indian Ocean
January 21, 2019	N America, S America, W Africa, W Europe
May 26, 2021	E Asia, Australia, Pacific Ocean, W North America, W South America
May 16, 2022	N America, S America, Europe, Africa
November 8, 2022	Asia, Australia, Pacific Ocean, N America, S America
March 14, 2025	Pacific Ocean, N America, S America, Atlantic Ocean, W Europe, W Africa
September 7, 2025	Europe, Africa, Asia, Australia, Indian Ocean
March 3, 2026	E Asia, Australia, Pacific Ocean, N America, C America
June 26, 2029	E North America, S America, Atlantic Ocean, W Europe, W Africa
December 20, 2029	E North America, E South America, Atlantic Ocean, Europe, Africa, Asia

Table H2

### **Additional Resources**

For more information and detailed maps about eclipses, see these resources.

- > NASA's Eclipse Site: http://eclipse.gsfc.nasa.gov/ (http://eclipse.gsfc.nasa.gov/)
- Mr. Eclipse site for beginners by Dr. Fred Espenak: <a href="http://www.mreclipse.com/">http://www.mreclipse.com/</a> (<a href="http://www.mreclipse.com/">http://www.mreclipse.com/</a>)

 Eclipse Weather and Maps by Meteorologist Jay Anderson: http://eclipsophile.com/total-solar-eclipses/ total-solar-eclipse-2017-august-21/ (http://eclipsophile.com/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/total-solar-eclipses/t

- > Eclipse Maps by Michael Zeiler: http://www.eclipse-maps.com/Eclipse-Maps/Welcome.html (http://www.eclipse-maps.com/Eclipse-Maps/Welcome.html)
- > Eclipse Information and Maps by Xavier Jubier: <a href="http://xjubier.free.fr/en/site\_pages/eclipses.html">http://xjubier.free.fr/en/site\_pages/eclipses.html</a>)
  (http://xjubier.free.fr/en/site\_pages/eclipses.html)