

A detailed image of a crescent moon, showing its characteristic curved shape and numerous small craters. The moon is positioned on the left side of the frame, with its illuminated edge facing right. The background is a solid, deep black, which makes the grey and white tones of the moon stand out prominently.

Session #3 –
A Look Back at Past Eclipses

Antares



Moon (x4)



S

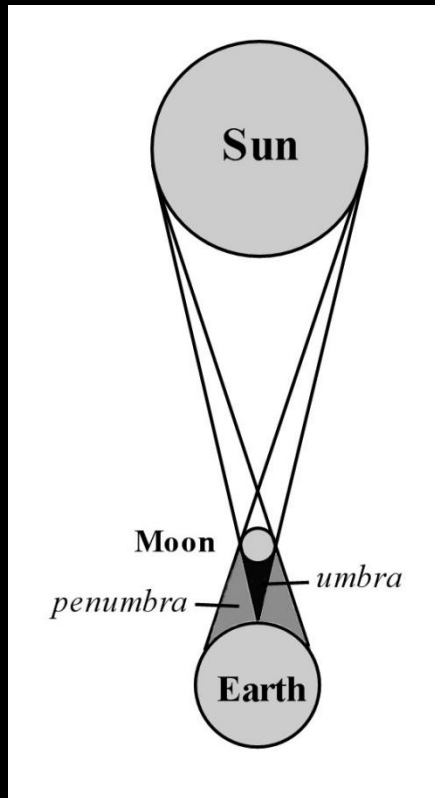
SW

Tonight, 7:30pm

Date and T

Solar Eclipses

Total Solar Eclipse of 1999 August 11



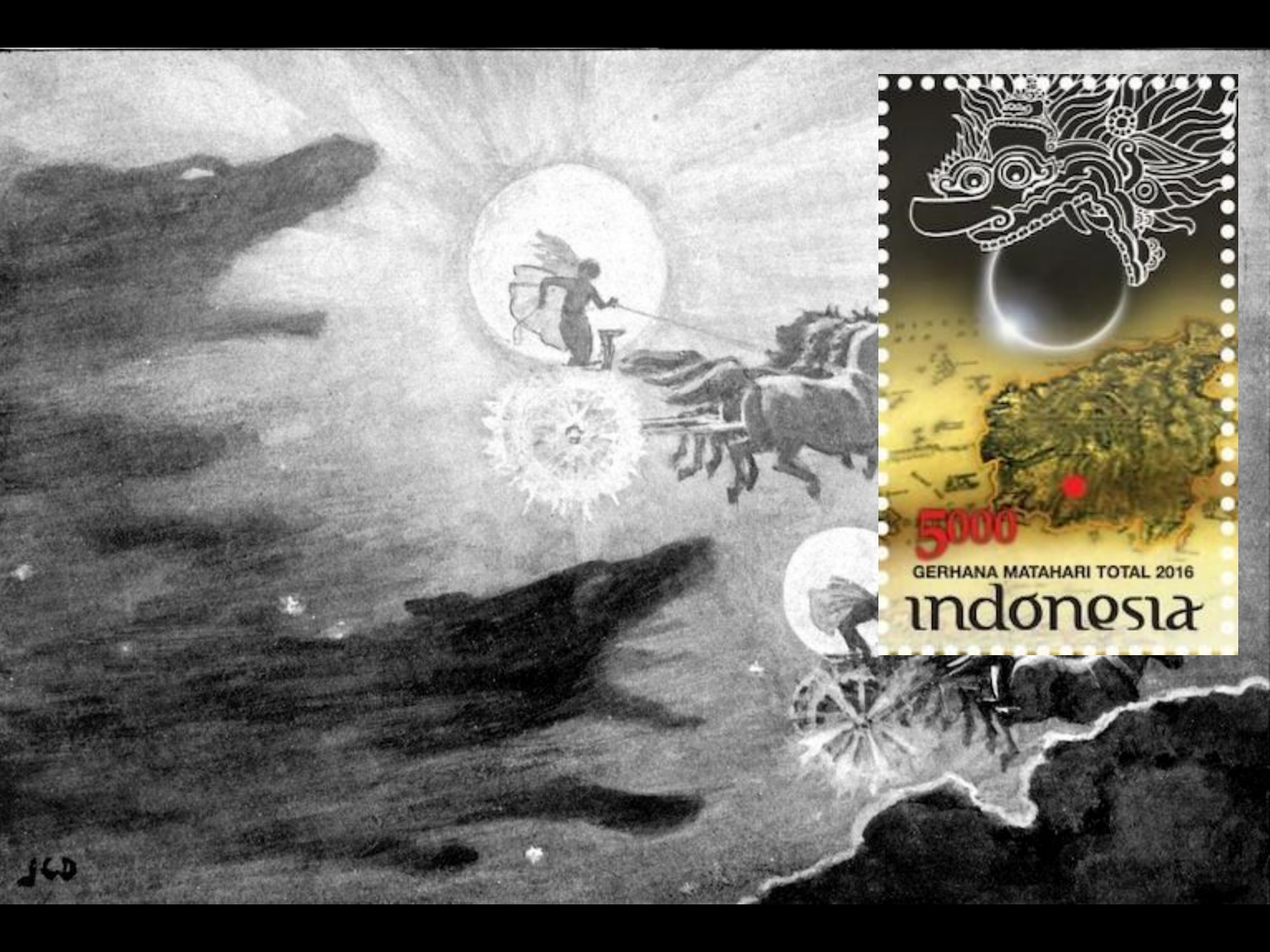
Eclipse folklore

*Hindu mythology –
Rahu swallows the Sun*



Eclipse folklore

- Vietnam – giant frog devoured the Sun
- Norse – wolves eating the Sun
- China – celestial dragon or dog ate the Sun (“shih” = “to eat”)
- Korea – mythical dogs trying to steal the Sun
- Pomo (NW) – bear fights with the Sun and takes a bite out of it, then bites Moon
- Greece – sign of angry gods
- Tewa (NM) – Angry Sun visits underworld



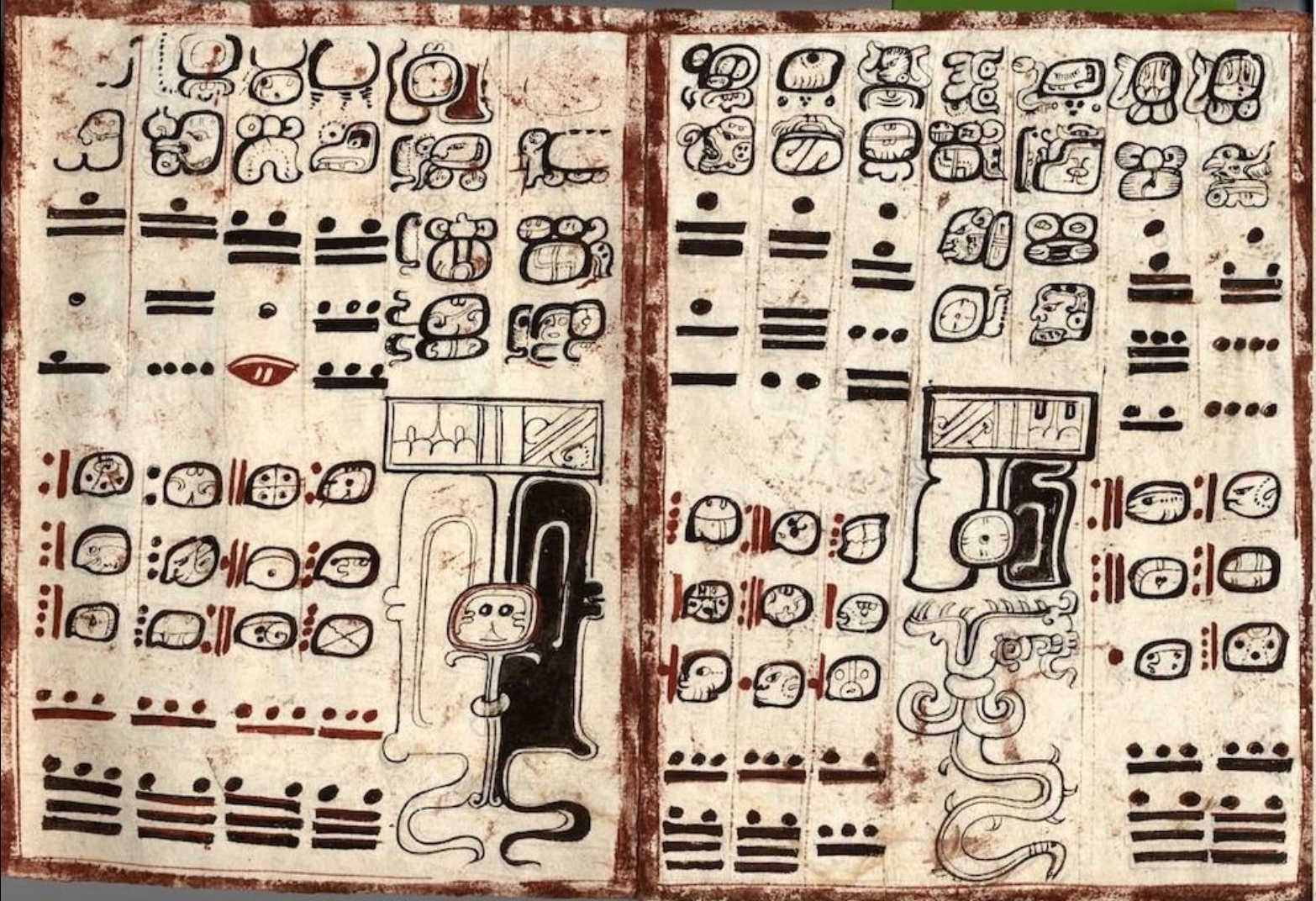
5000

GERHANA MATAHARI TOTAL 2016

Indonesia

31

Eclipse tables from Dresden Codex



Modern day folklore?

- Watching an eclipse is harmful to a pregnant woman!
- Food cooked during a solar eclipse is poisonous (India)
- Flowers planted during a solar eclipse are more colorful (Italy)

First recorded eclipse?

- November 30, 3340 BCE
- Loughcrew Cairns in County Meath, Ireland



1302 BCE



Anyang, China oracle bones



- 1200 BCE
- Oxen scapula
- “The Sun has been eaten!”
- Earth’s rotation is slowing!

“Moon turned to blood”

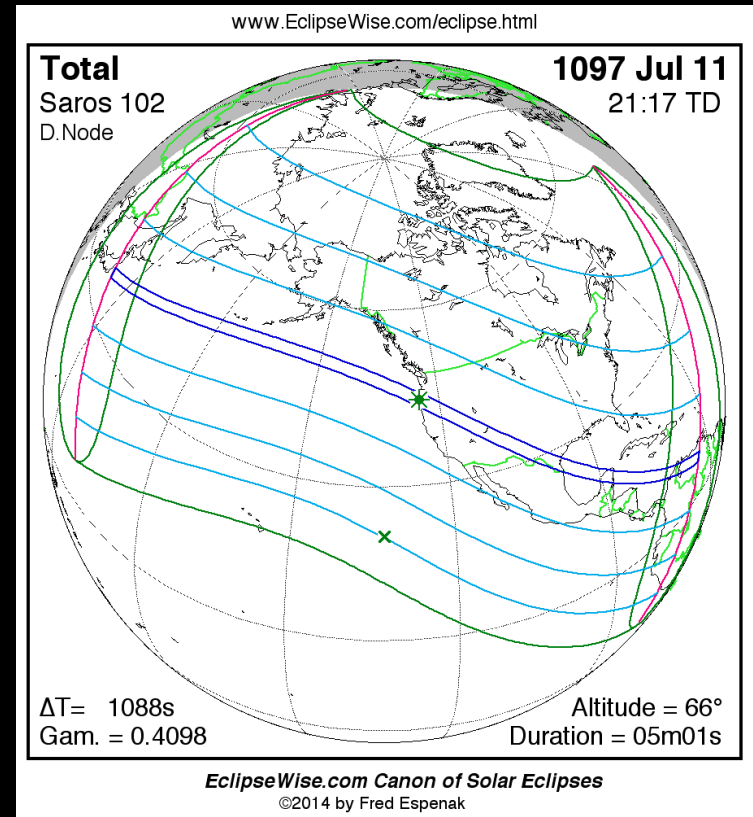
- Total Lunar Eclipse
- April 3, 33 CE



Chaco Canyon



- July 11, 1097



Mexico
March, 1727

1st detailed
documentation
that included . .

SPHEROGRAPHIA

DE LA OBSCURACION

de la Tierra,

EN EL ECLYPSE DE SOL,

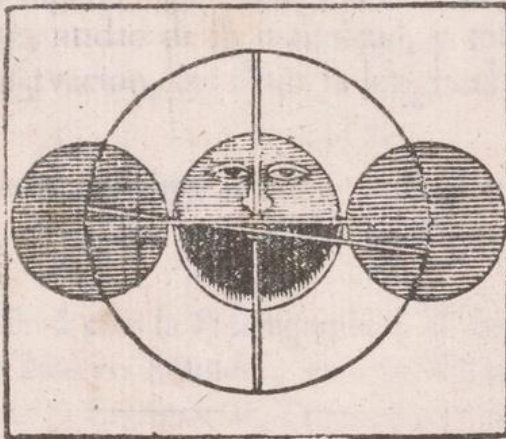
de 22. de Marzo de 1727.

METHODO DE OBSERVARLE,

y de corregir los Reloxes.

*Delineada por D. Juan Antonio de Mendoza,
y Gonzalez, Professor de las Ciencias Mathe-
maticas, Contador, Agrimensor universal
de este Reyno de Nueva-España.*

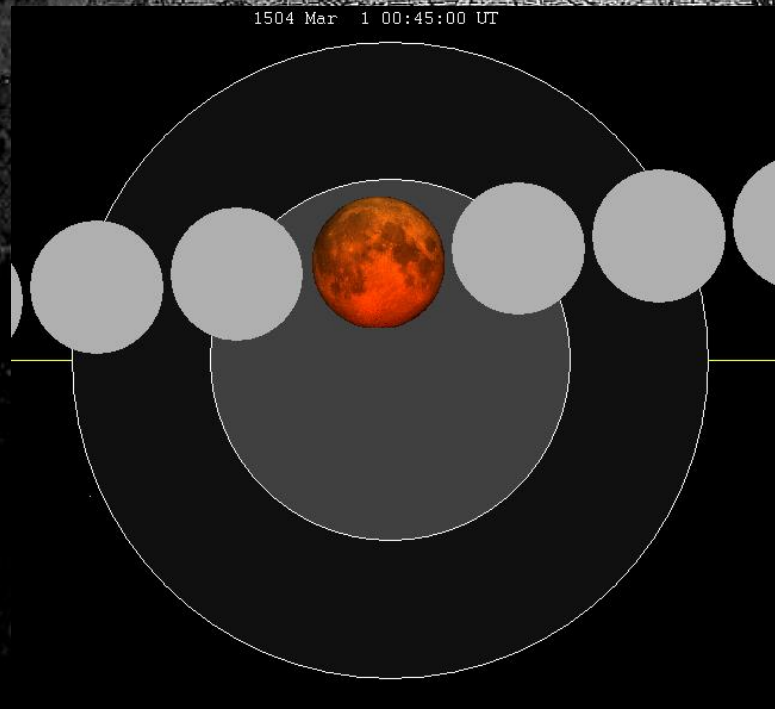
SEPTENTRIO.



MERIDIES.

Con Licencia. En Mexico: por Joseph Bernardo
de Hogal. En la Calle de la Monterilla.

Columbus March 1, 1504



June 24, 1778



David Rittenhouse
1732-1796

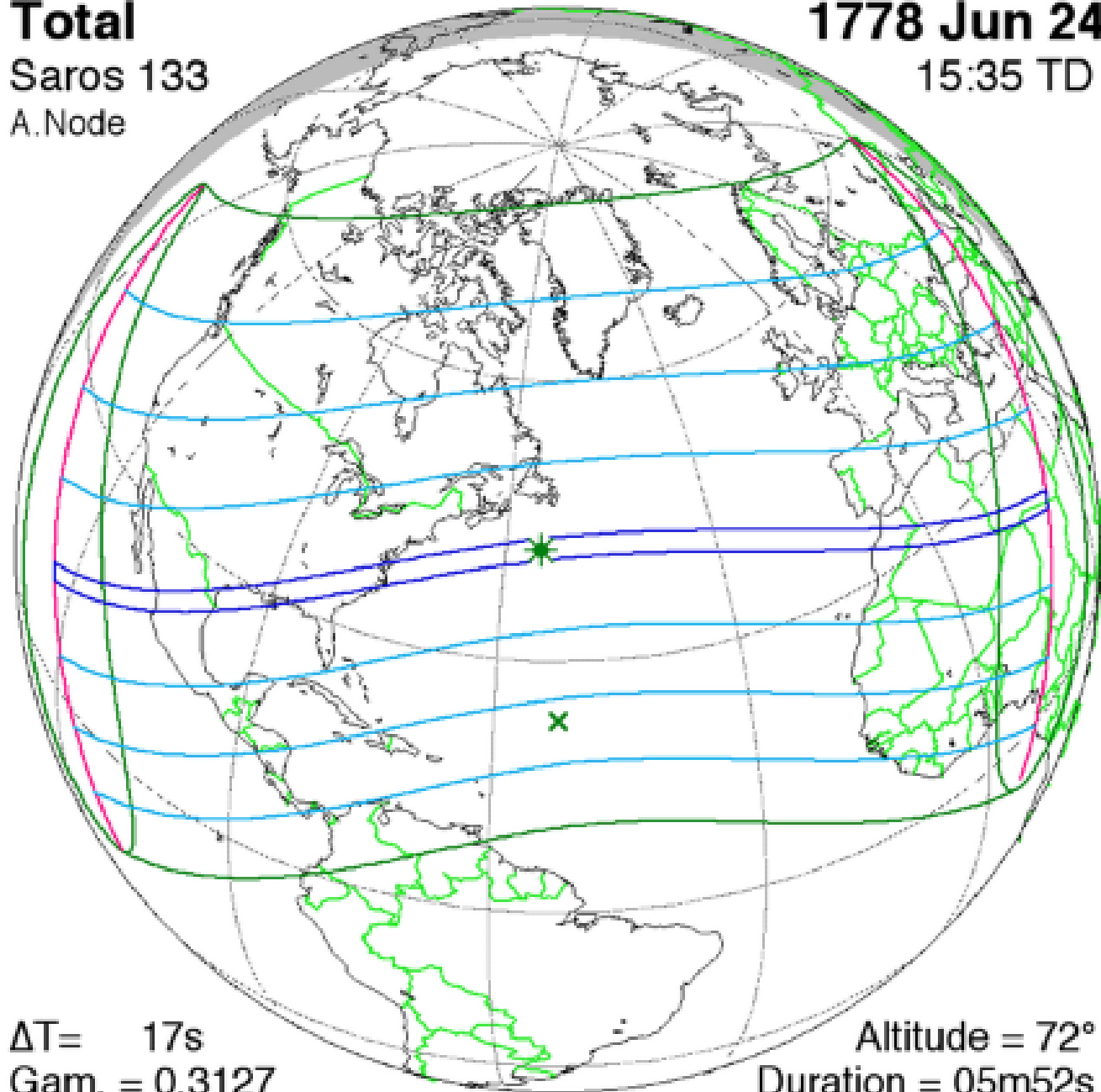
Total

Saros 133

A.Node

1778 Jun 24

15:35 TD



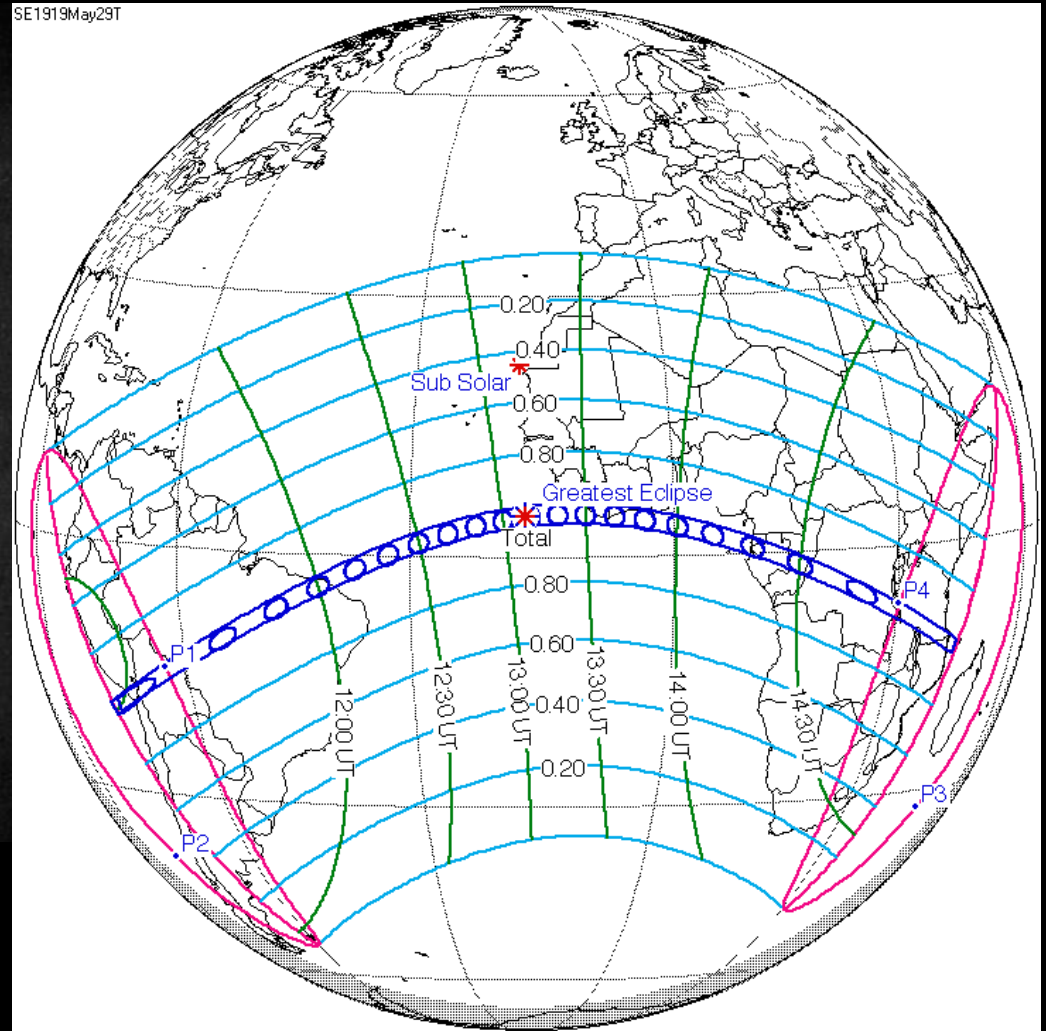
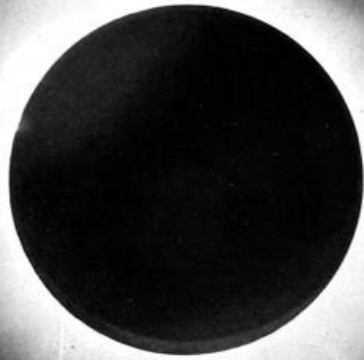
Feb. 12, 1831 – Nat Turner uprising



July 29, 1878 – Thomas Edison



May 29, 1919



LIGHTS ALL ASKEW IN THE HEAVENS

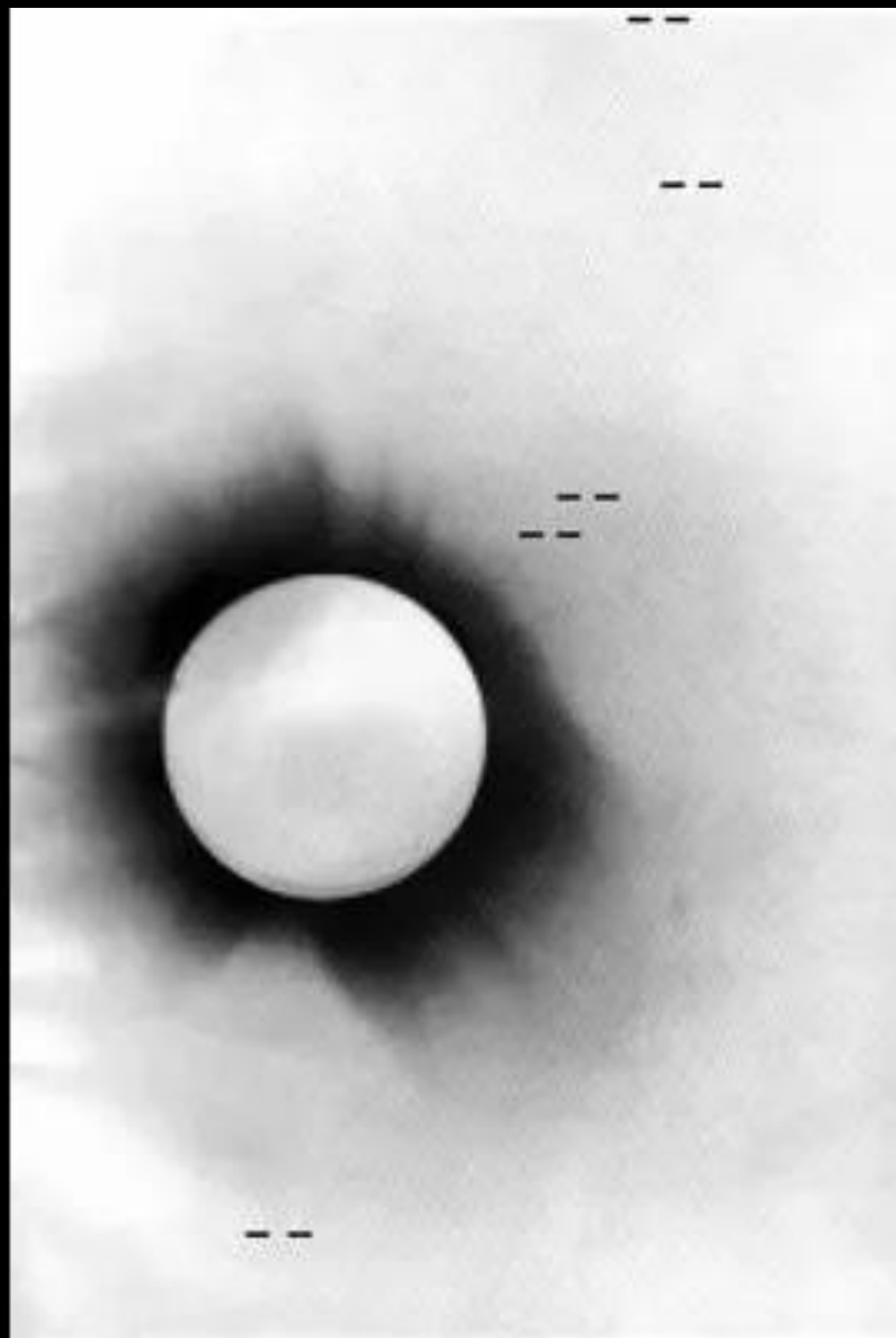
Men of Science More or Less
Agog Over Results of Eclipse
Observations.

EINSTEIN THEORY TRIUMPHS

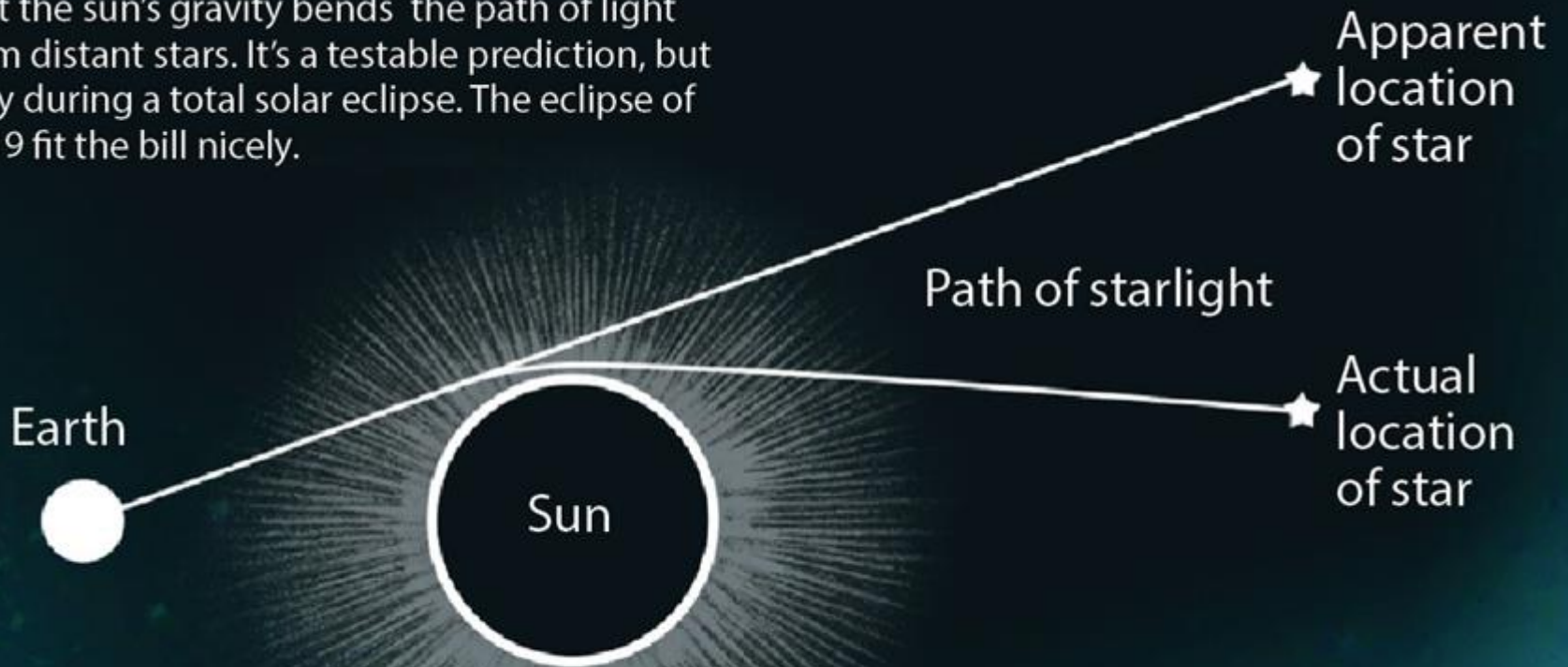
Stars Not Where They Seemed
or Were Calculated to be,
but Nobody Need Worry.

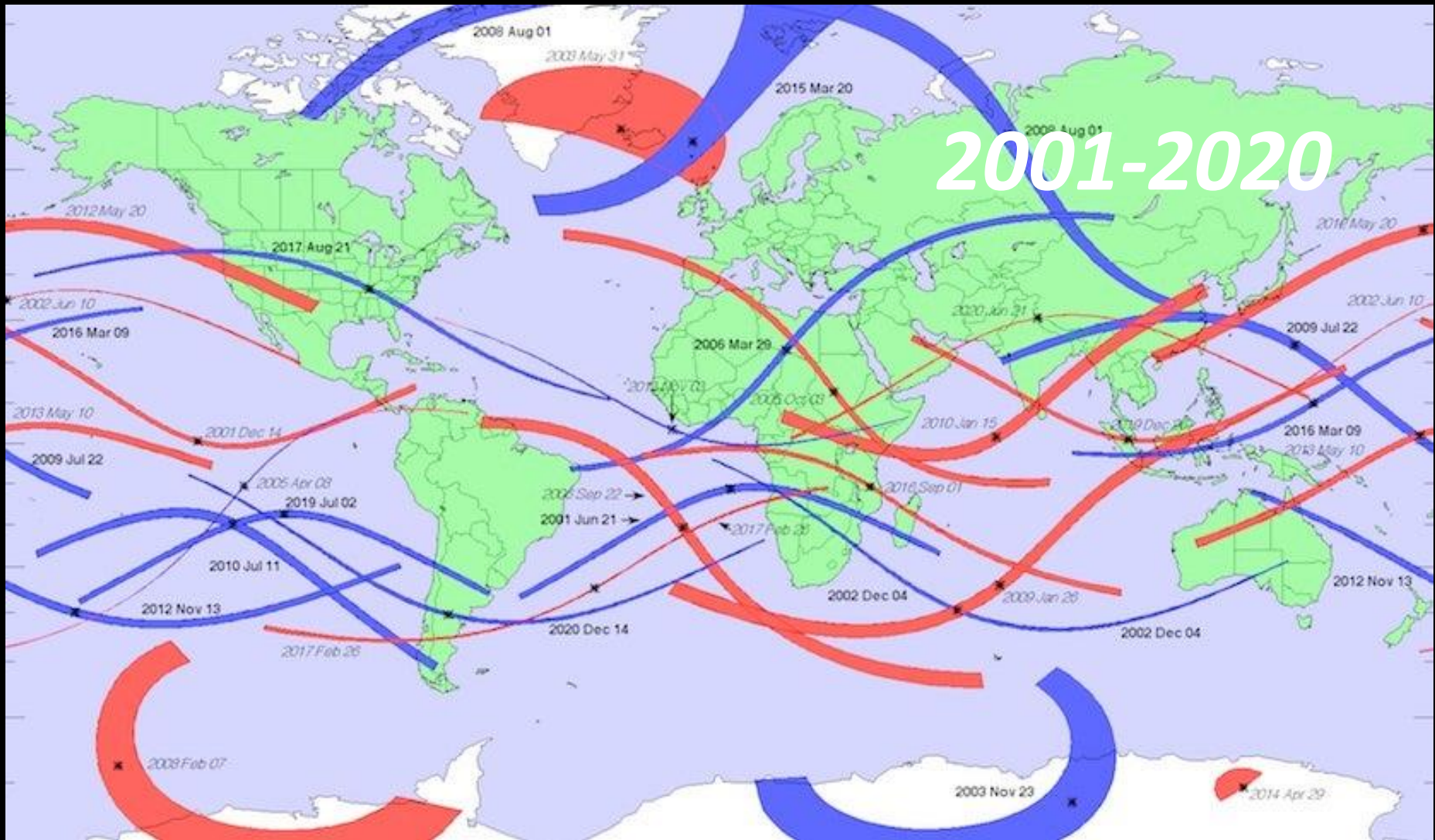
A BOOK FOR 12 WISE MEN

No More in All the World Could
Comprehend It, Said Einstein When
His Daring Publishers Accepted It.



Einstein's general theory of relativity suggests that the sun's gravity bends the path of light from distant stars. It's a testable prediction, but only during a total solar eclipse. The eclipse of 1919 fit the bill nicely.





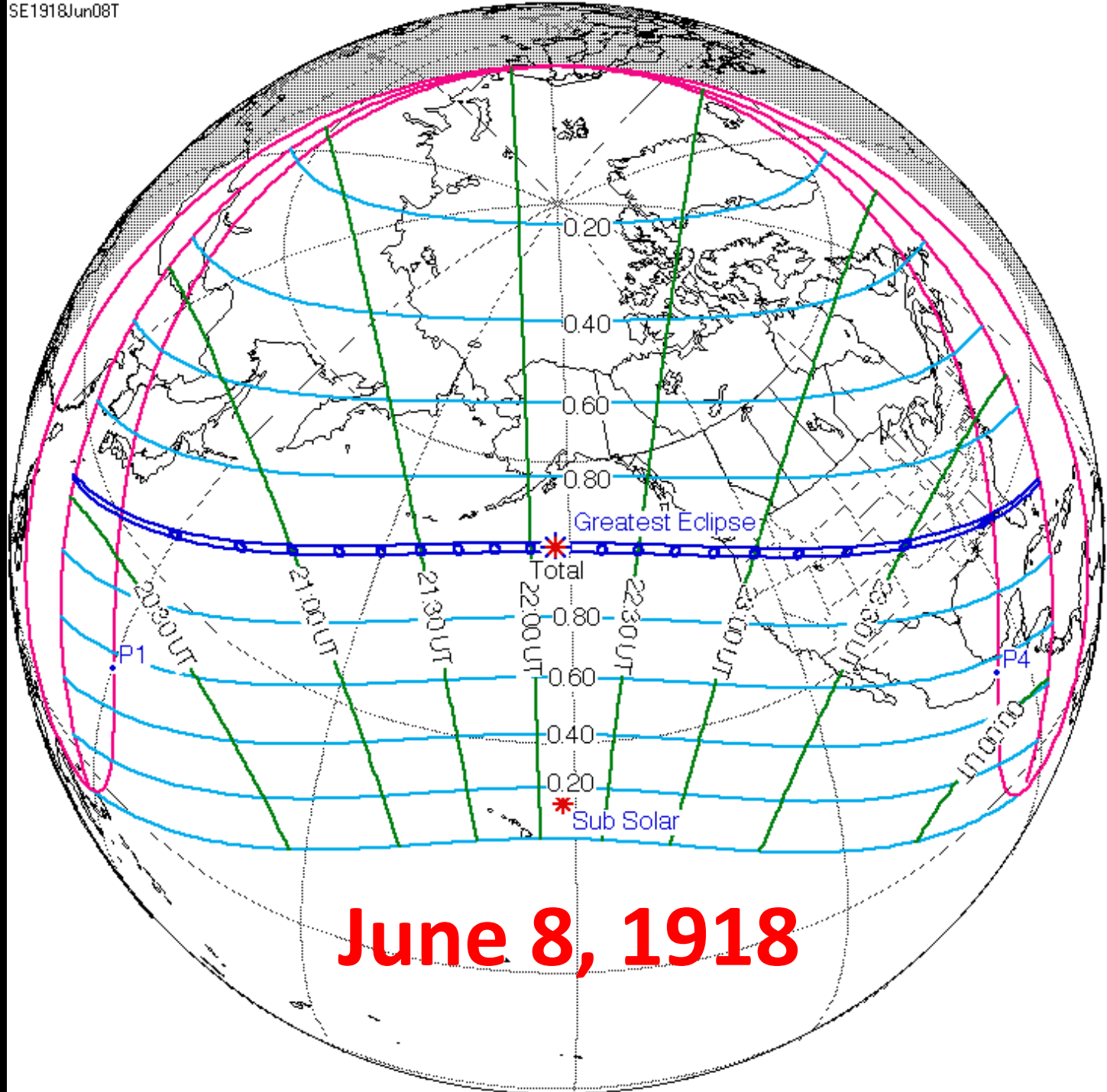
Since 1867 – 15 total solar eclipses (1869, 1878, 1889, 1900, 1918, 1923, 1925, 1930, 1945, 1954, 1959, 1963, 1970, 1979, 2017)

June 8, 1918 – last Pacific to Atlantic until 2017



Police Enforce Quiet So Astronomers at University May Make Priceless Observations—Movies to Be Taken—Throngs Seek Vantage Points.

AMERICANS PUSH
GERMANS BACK IN

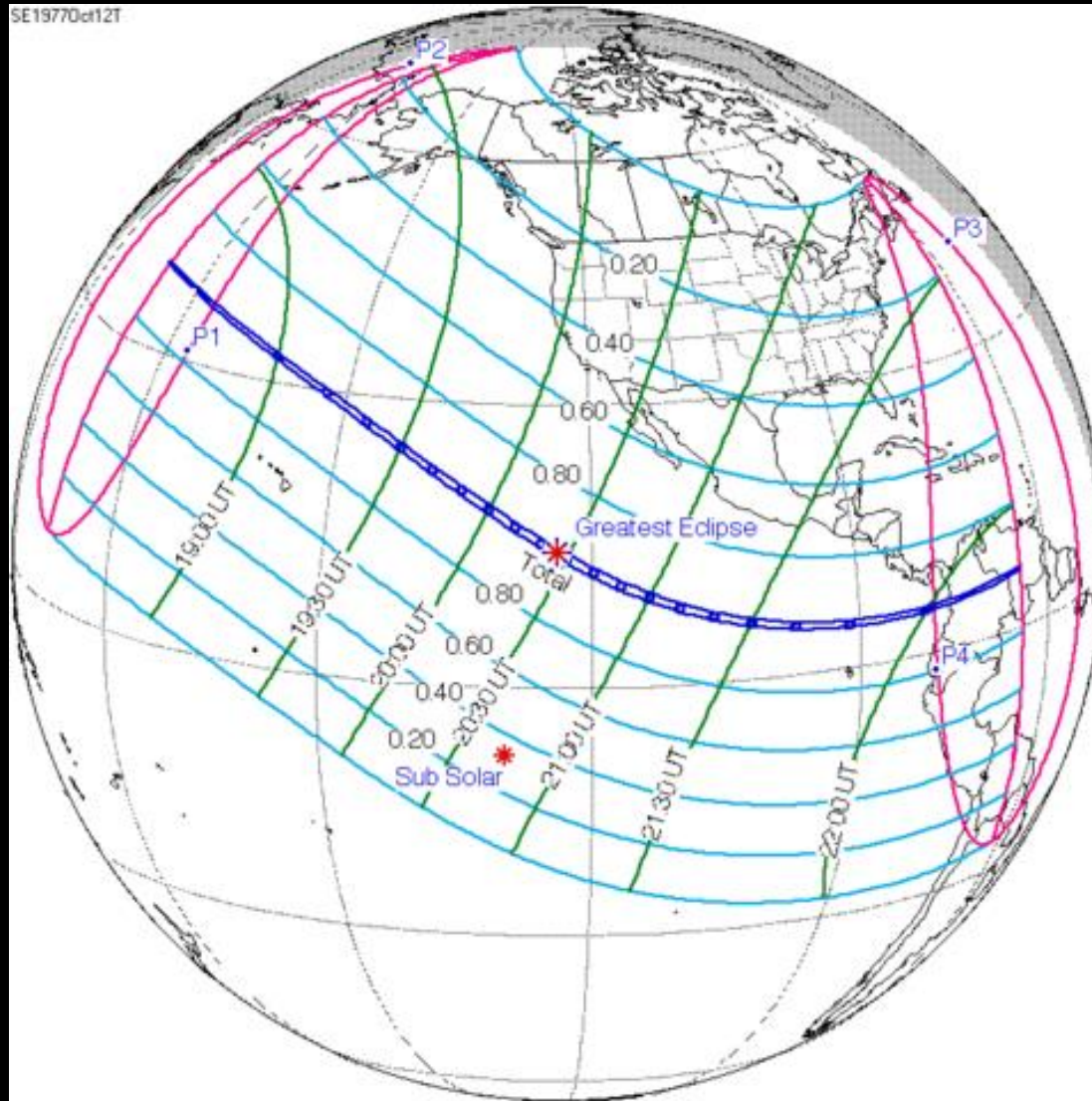


June 8, 1918

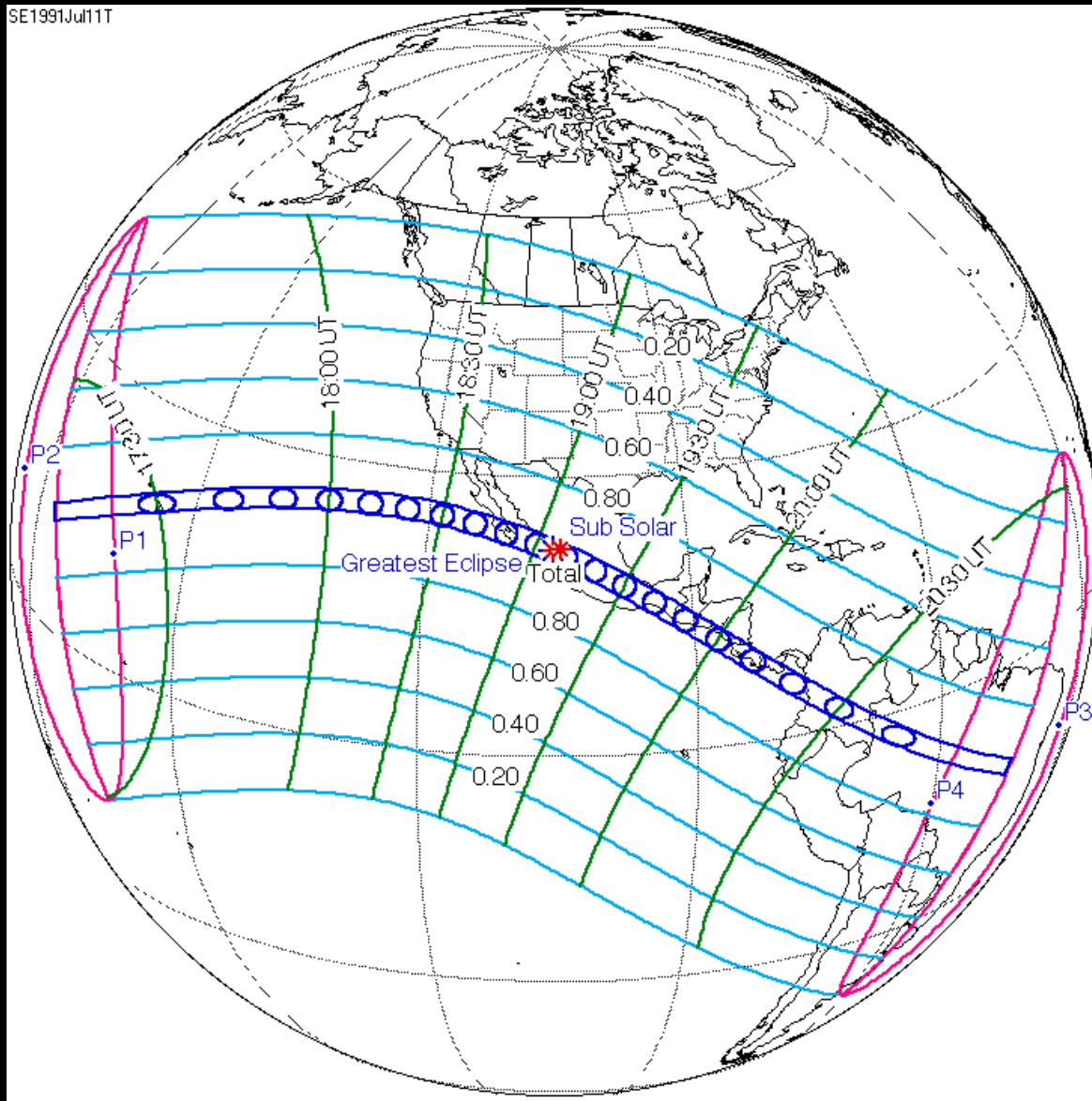
March 7, 1970 (?)



Wednesday, October 12, 1977



Hawaii July 11, 1991



6m 53 sec of totality



The Total Solar Eclipse Over
Mauna Kea Observatory Of July 11, 1991

**ECLIPSE
of the
CENTURY**

EarthStation1.com

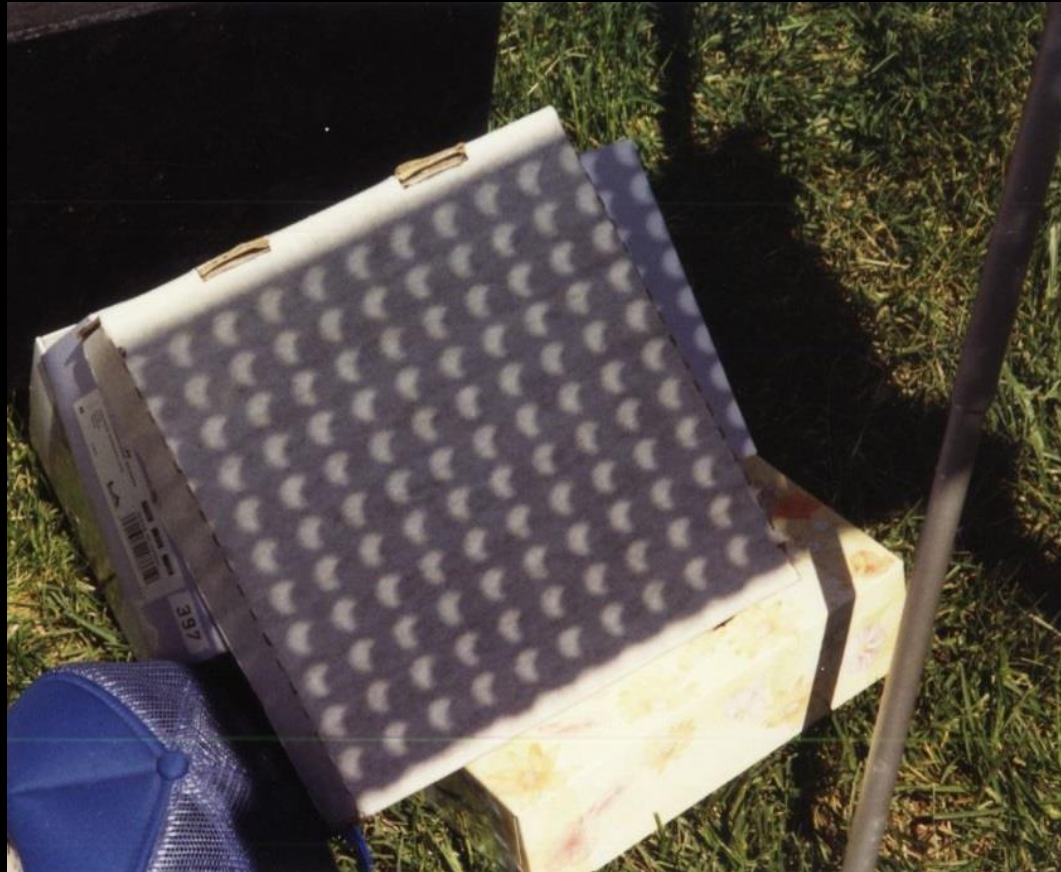




1994 Annular eclipse

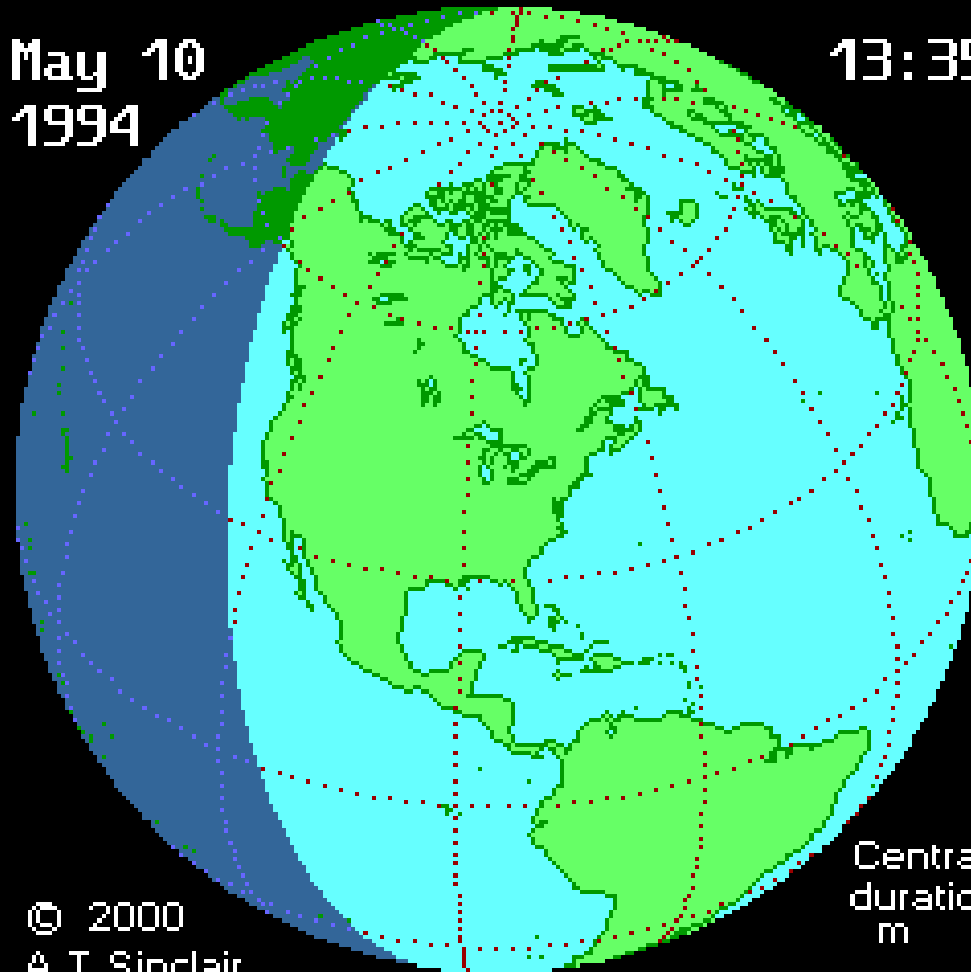
- Moon at “apogee” – appears smaller

May 10, 1994



May 10
1994

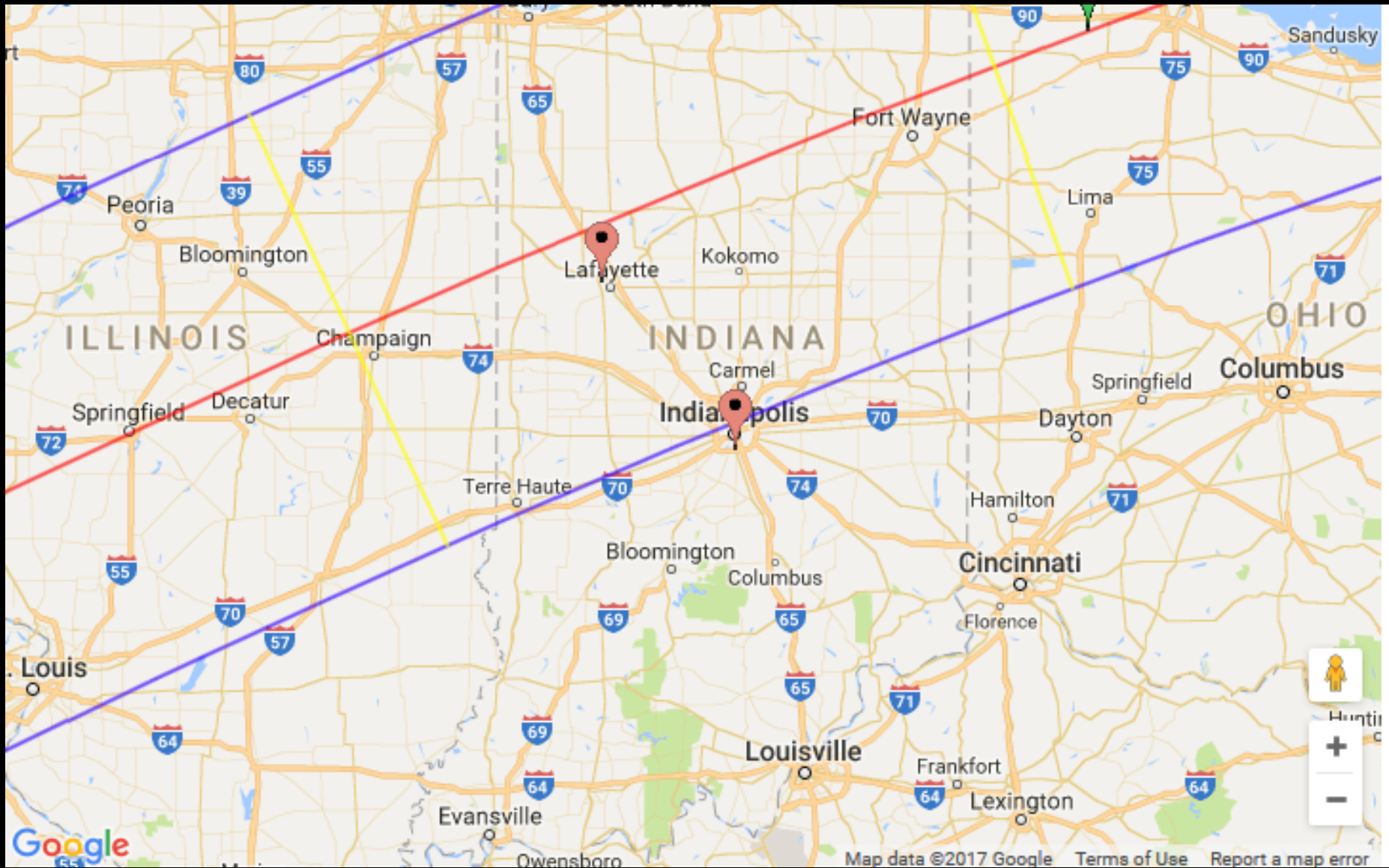
13:35



© 2000
A.T.Sinclair

Central
duration
m s

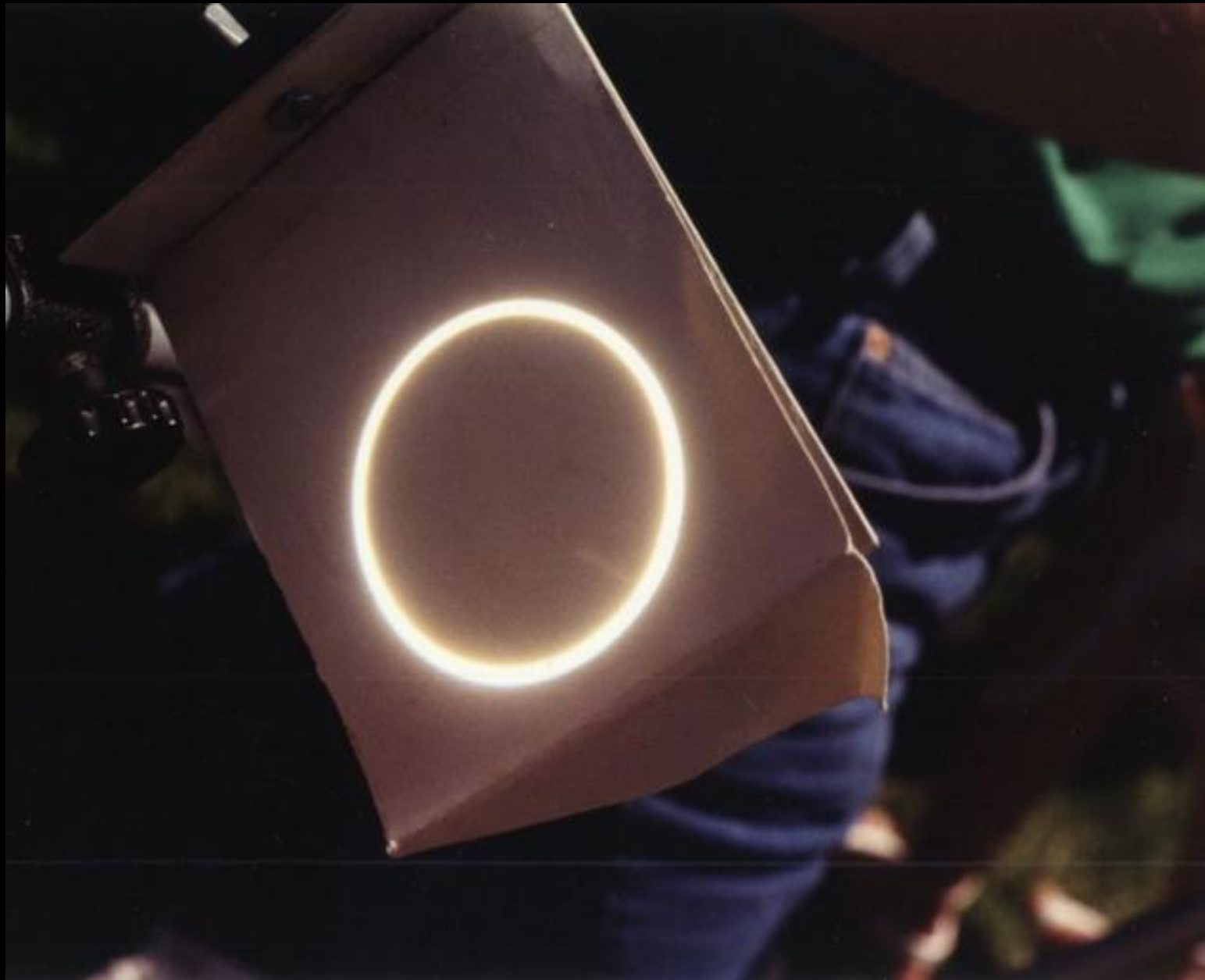
Espenak's Eclipse Home Page



1994







Astronomy “picture of the day”



October, 2014
Doyle Slifer

September, 2015





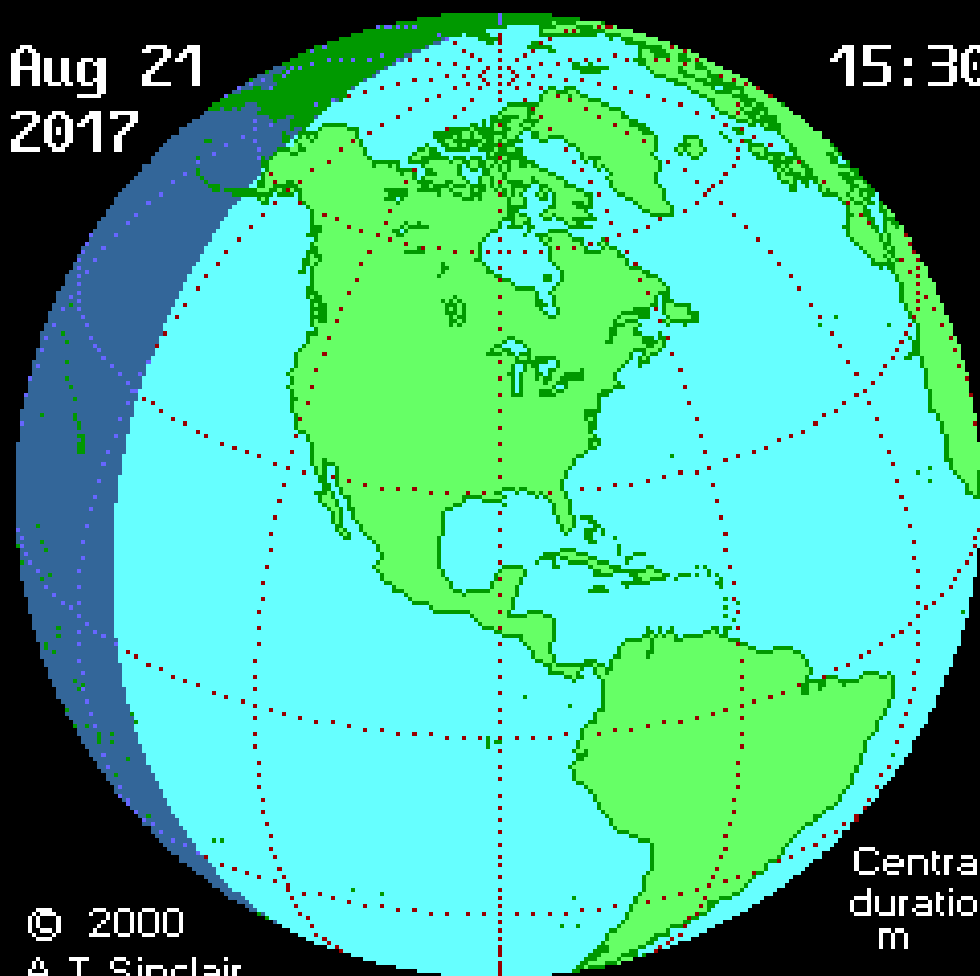
August 21, 2017



Image by Jeff Bryant

Aug 21
2017

15:30

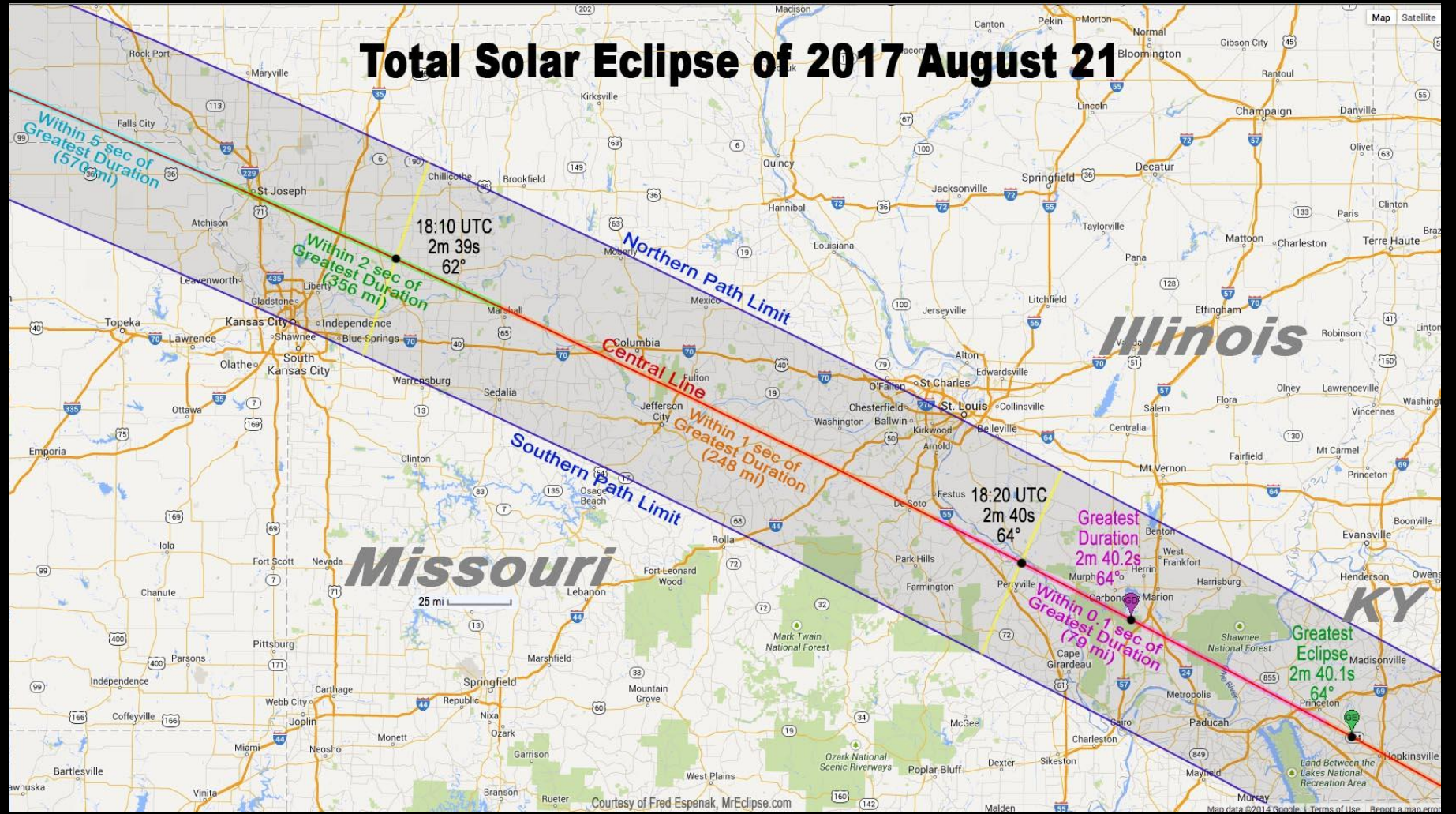


© 2000
A.T. Sinclair

Central
duration
m s

sunearth.gsfc.nasa.gov/eclipse

Total Solar Eclipse of 2017 August 21



Courtesy of Fred Espenak, MrEclipse.com

Map data ©2014 Google. Terms of Use. Report a map error.



















EXIT 59
Johnston City
Herrin
1 MILE

Coachmen

TOUR

LOCB

AD TRANSP

We had time left so we talked about the Northern Lights

- www.spaceweather.com
- Look on left side, down the page for the K-index.
- If this gets above 6, go outside and look in the northern part of the sky!
- Auroral oval is centered above north magnetic pole of Earth. When the Earth's magnetism is energized, the oval gets larger – we could be under it!