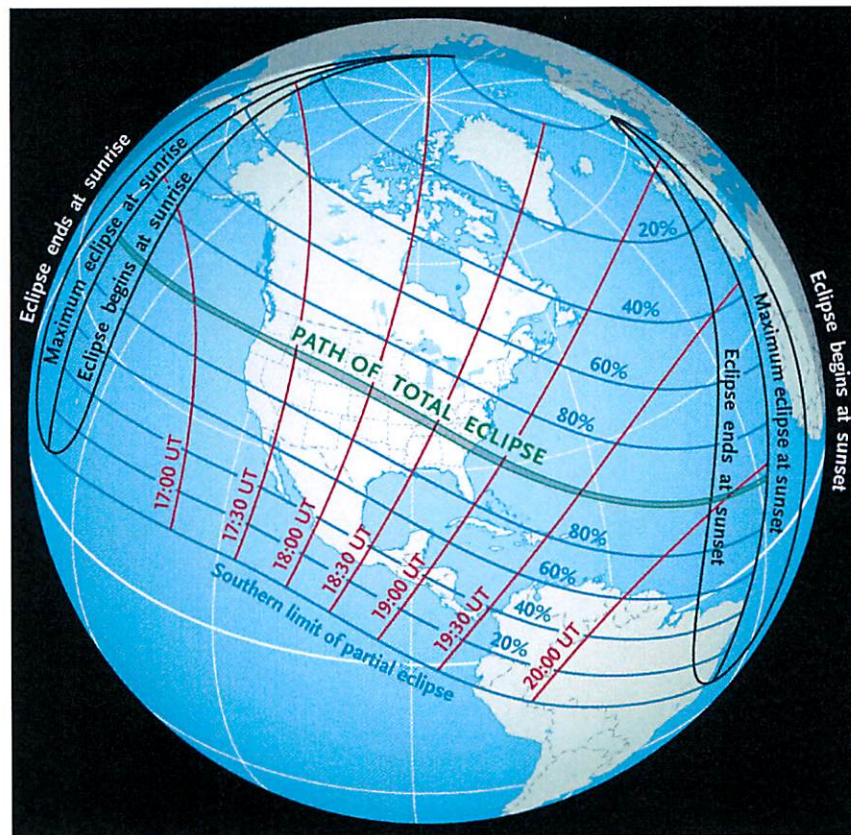


August 21, 2017, Total Solar Eclipse Facts (Source/Astronomy Magazine)

- Solar eclipse is a lineup of the Sun, Moon and Earth, with the Moon directly between the Sun and Earth casting a shadow on the planet.
- “Umbra” = is the dark part of the shadow (total eclipse).
- “Penumbra” = is the light part (partial eclipse).
- The first contact will be in Oregon; water front at Government Point, Oregon, 10:15 A.M. PDT, and will last 1 minute and 58.5 seconds.



Sky & Telescope diagram / source: Fred Espenak

- “Center Line” crosses through twelve (12) states:
 1. Oregon
 2. Idaho
 3. Wyoming
 4. Nebraska
 5. Kansas
 6. Missouri
 7. Illinois
 8. Kentucky
 9. Tennessee
 10. North Carolina
 11. Georgia
 12. South Carolina.



Source: Sky and Telescope.com

- **Maximum totality lasts 2 minutes 40.2 seconds in Giant City State Park, Illinois.**
- **This eclipse will be the most viewed ever due to:**
 - **Attention it will receive by the media**
 - **Superb coverage of the United States highway system**
 - **Typical weather on that date**
 - **Number of people who have access from nearby large cities.**
- **Depending on nature's surroundings, as totality nears strange things may happen.**
 - **Look - There will be a resemblance to the onset of night. Shadows look different because of areas around the Sun's horizon are much lighter.**
 - **Listen - Any breeze will dissipate and birds (many of whom will come in to roost) will stop chirping. It will be quiet.**
 - **Feel - 10 to 15 degree F drop in temperature will not be unusual.**
- **Look for during the event!**
 - **Comets *may* appear bright if their compositions are just so.**
 - **Meteor showers *might* reach storm levels with the best views after midnight.**
 - **A supernova as bright as a whole galaxy is visible now, but you need a telescope to view it.**
- **If skies are clear, everyone in the United States will see at least a partial eclipse. The Moon will cover at least 48% of the Sun (at the Northern tip of Maine).**
- **First Total Solar Eclipse in the United States in 38 years.**
- **The next solar eclipse to occur in the United States is April 8, 2024.**