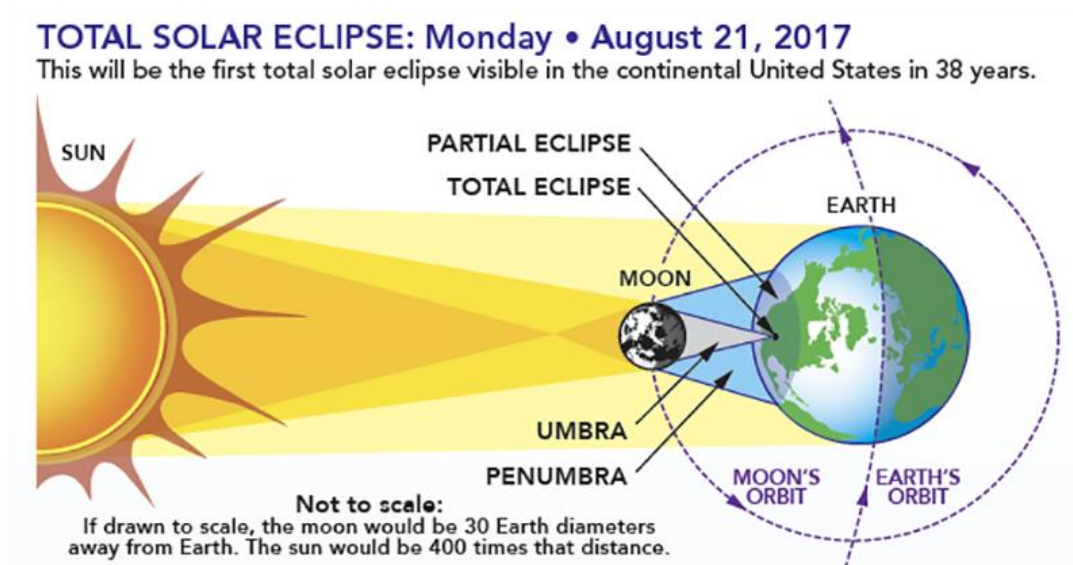


## Are You Ready for America's Coast to Coast Eclipse?

On Monday, August 21, 2017, all of North America will be treated to a solar eclipse. According to NASA, the last time the contiguous United States saw a total solar eclipse was in 1979.

### What Is a Total Solar Eclipse?

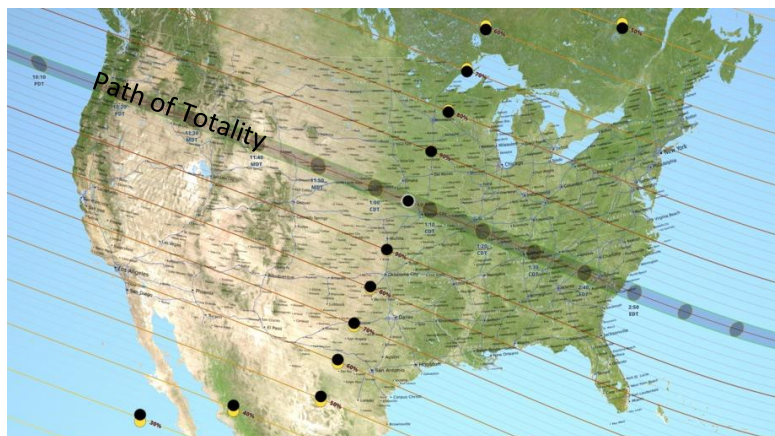
A total solar eclipse occurs when the moon passes between the earth and the sun, thereby totally blocking all direct sunlight and turning day briefly into twilight. Totality occurs in a narrow path across Earth's surface, with the partial solar eclipse visible over a surrounding region thousands of kilometers wide.



*Photo Credit: NASA*

### When and Where Will I Be Able to View the Eclipse? How Long Is It?

Everyone in North America will be able to see at least a partial solar eclipse; however the following states will be able to view the eclipse in its totality: Oregon, Idaho, Wyoming, Nebraska, Iowa, Kansas, Missouri, Illinois, Kentucky, Tennessee, Georgia, North Carolina, and South Carolina.



These states will experience over two minutes of darkness in the middle of the day.

	Eclipse Begins	Totality Begins	Totality Ends	Eclipse Ends	
Madras, OR	09:06:43	10:19:36	10:21:38	11:41:06	PDT
Idaho Falls, ID	10:15:10	11:33:04	11:34:48	12:58:05	MDT
Casper, WY	10:22:21	11:42:44	11:45:09	01:09:30	MDT
Lincoln, NE	11:37:16	01:02:40	01:03:48	02:29:46	CDT
Jefferson City, MO	11:46:07	01:13:07	01:15:38	02:41:05	CDT
Carbondale, IL	11:52:25	01:20:06	01:22:41	02:47:25	CDT
Paducah, KY	11:54:03	01:22:16	01:24:38	02:49:32	CDT
Nashville, TN	11:58:31	01:27:25	01:29:23	02:54:02	CDT
Clayton, GA	01:06:59	02:35:49	02:38:23	04:01:27	EDT
Columbia, SC	01:13:08	02:41:51	02:44:21	04:06:21	EDT

Seconds may vary depending on your location. View the interactive map for more information:  
[https://eclipse2017.nasa.gov/sites/default/files/interactive\\_map/index.html](https://eclipse2017.nasa.gov/sites/default/files/interactive_map/index.html)

*Example of eclipse times for cities in the path of totality, courtesy of NASA.*

## What Is a Safe Way to Watch the Eclipse?

The only safe way to view the eclipse is by using hand-held solar viewers or eclipse glasses. Sunglasses do not provide the protection needed to view the eclipse. The American Astronomical Society (AAS) has a list of [reputable vendors of solar filters and viewers](#). Eclipse glasses or viewers must be compliant with the ISO 12312-2 safety standard.

## How Should I Prepare?

- Check with local science or astronomy clubs for viewing party information
- Expect large crowds in the path of totality
- Leave early to arrive at your destination
- Bring drinks and snacks
- Wear sunscreen
- Bring a folding chair or a blanket
- Bring this guide and the enclosed eclipse glasses

## Share Your Eclipse Experience with Sigma Xi.

Tweet photos to [@SigmaXiSociety](#) or email them to [executiveoffice@sigmaxi.org](mailto:executiveoffice@sigmaxi.org).

## When Is the Next Total Solar Eclipse After 2017?

If you miss this summer's total solar eclipse, the next total solar eclipse with a path of totality that falls within the continental US will happen on April 8, 2024 and will be viewable from Texas to Maine.