

# SOLAR ECLIPSE 2017 SURVIVAL GUIDE

How to Plan, Enjoy and Survive the Great American Eclipse

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Only one week remains until millions of people from all over the world will converge along a 70-mile narrow path of the shadow of the moon cast by the sunlight from the Great American Eclipse of 2017. At most, locations in Missouri and Tennessee will enjoy a 2 minute 40 second period of absolute "nighttime during day" just after noon on Monday, August 21. So that you will get the most out of this eclipse - whether you are one of those millions cramming into every dirt road, parking lot, farmer's field or city park - following are a few tips on how to make the most out of your eclipse experience.

A total solar eclipse - or even a good partial one - is one of the few celestial events that still stirs the blood for the average citizen and one that should be enjoyed to its fullest. There is very little science left in studying an eclipse (there are some research efforts that go on, but we want to focus on our average population), so my recommendation is to first of all ENJOY the event with friends and family so that it will be a life-long memory for all involved, and secondly attempt to get a photograph of it no matter where you location might be.



To view the eclipse with your eyes or through a telescope, you must have proper eye protection; the cheap Mylar (looks like aluminum foil) glasses, if certified, are excellent for this and larger pieces of this stuff are available for covering binoculars, telescopes and cameras.....however if you have waited this late to get yours, you are out of luck. Nearly all supplies are now exhausted. If in the path of totality, USE the filter all the way through partial phases, then quickly REMOVE

the filter to view or photograph the eclipse in all its glory immediately upon totality.

### GOING TO TOTALITY?

If you are traveling to the eclipse, be warned: nearly ALL cities and towns located in the path of totality, from Oregon to South Carolina, are now insisting that all persons bring adequate "survival supplies" because their infrastructure is going to be tasked to the limit. Government officials are asking that you treat your journey as if it were in an area of "state of emergency" ....bring your own:

- 1) water
- 2) food
- 3) full tank (and extra if possible) of gasoline
- 4) medical supplies and any medications you must take or think that you will need
- 5) portable sanitation facilities if possible
- 6) provisions for sleeping in your vehicle or outdoors since all lodging is filled to capacity.

For whatever reason, if you have not already arranged lodging within 200 miles of totality, forget it and plan to sleep in your car - if you can find a place to park it. All motels, hotels, B & B, parking lots, campsites and cattle fields are filled to capacity with people who have planned in advance. Also, if you plan to stay in a hotel outside the totality path and drive to totality early Monday morning, you likely will not make it in time to set up. It is anticipated that roadways leading into the path from all directions will either be blocked with traffic or shut down from jams of vehicles attempting to get into the 70-mile strip of darkness.

There are people who have been planning this trek for a decade now, and for those who just now decided it might be a "fun thing" to drive up and see it - you are going to spend a day or two in ultimate frustration and confusion. However, if you are a planner and have all of your ducks in a row, then settle back and remember some of the fun and exciting things that you can do, both within the realm of total darkness and even in locations outside of the Goldilocks zone - a partial eclipse can be exciting and fun too!

### THE RULE BOOK

During totality:

- 1) at 99.5% there is an eerie appearance to the sky, colors on the ground and shadows, but it is still "daylight"
- 2) exactly and instantly at 100% eclipse, the sky turns into night, with stars, the Milky Way and celestial objects visible in broad daylight
- 3) note that the air temperature cools down nearly instantly and can drop as much as 15 degrees in only two minutes
- 4) the breezes frequently will increase
- 5) watch and listen for all nocturnal animals: bats, coyote, owls, frogs and other nighttime creatures, who think that night has begun
- 6) the spectacle is almost overwhelming to a novice eclipse observer; be prepared to

be in awe instantly, and do not forget "your plan"

7) remember to REMOVE your filter over your camera or telescope to view or to take photographs - you will not see anything with filter in place during totality

8) watch for the "diamond ring" effect, or "Bailey's Beads" along the western edge of the sun as the moon begin to exit the eclipse

9) NOTE that it will become instantly "daytime" again and be prepared to immediately put filters back in place.

10) above all, do not consume yourself so much with photographs and gadgets that you miss actually enjoying the eclipse.

For those with partial phases:

1) keep your eyes covered, camera lenses covered and proper filters on telescopes at ALL times

2) even at 95 % eclipsed, the intense heat from the sun will burn your retina and certainly will ruin the sensor of your camera or smart phone

3) for those with 85% and greater partial coverage, watch the sky for a slight darkening which should become evident

4) similarly, look at the shadows on the ground as they become more diffuse and the colors take on an odd hue

5) watch glimmers of sunshine falling on the ground under bushes and trees - they will show little eclipses everywhere!

6) REFLECT an image of the eclipse from a small mirror completely covered except for a 1" hole in the middle; reflect the sunlight onto a wall in shadows for everyone to see.

7) spell out your name in pinholes (push pin in perfect) on a stiff cardboard and hold to the sun, casting a shadow onto a white piece of foamboard - you will spell your name on the foamboard in little eclipsed suns!

8) using ONE side of a pair of binoculars (keep the cover on the other side), point the large end at the sun and project a true image of the eclipse onto a large white board on the ground.

9) watch for "sunspots" on the surface of the sun - dark patches of solar storms and magnetism

10) keep eyes protected at all times when viewing directly using certified solar eclipse glasses.

## TIMETABLE

Following are given as an average time, state-by-state in which the eclipse will be total for the start of partial to the start of totality.

Use these times for your location, if partial, to determine when MAXIMUM partial phase will occur. For an understanding of just how much coverage you will have from your location, look at the eclipse icons on the map provided.

ECLIPSE START TIMES WEST TO EAST (start of partial phases):

1) Oregon - 09:06 a.m. PDT

2) Idaho - 10:15 a.m. MDT

3) Wyoming - 10:22 a.m. MDT

- 4) Nebraska - 11:37 a.m. CDT
- 5) Missouri - 11:46 a.m. CDT
- 6) Illinois - 11:52 a.m. CDT
- 7) Kentucky - 11:54 a.m. CDT
- 8) Tennessee - 11:58 a.m. CDT
- 9) Georgia - 01:06 p.m. EDT
- 10) South Carolina - 01:03 p.m. EDT

ECLIPSE MAXIMUM (or start of totality) :

- 1) Oregon - 10:19 a.m. PDT
- 2) Idaho - 11:33 a.m. MDT
- 3) Wyoming - 11:42 a.m. MDT
- 4) Nebraska - 01:02 p.m. CDT
- 5) Missouri - 01:13 p.m. CDT
- 6) Illinois - 01:20 p.m. CDT
- 7) Kentucky - 01:22 p.m. CDT
- 8) Tennessee - 01:27 p.m. CDT
- 9) Georgia - 02:35 p.m. EDT
- 10) South Carolina - 02:41 p.m. EDT

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Enjoy the eclipse no matter where you are always remember to be friendly in what is sure to become the nation's largest-ever traffic jam.

Take lots of photos, use lots of sunscreen (both types) and carry away a memory that you will hold until the "real eclipse" over Arkansas in 2024!

Doc Clay