Eclipse article . . . The sky, if it is clear, will shine faintly with stars. Winds will surge. The temperature will drop as much as 10 degrees. Birds, it’s been reported, become frantic in advance of the encroaching darkness and then, eerily, turn quiet. For a brief few minutes, the sun’s light, needed for life on earth, disappears.

“The eclipse, really, it galvanizes your relationship with heaven and earth. That’s what it does,” said Jen Winter, a Warrensburg, Mo., photographer. For nearly 20 years, Winter has traveled to places including Antarctica, Hungary and waters 1,000 miles off the Galapagos Islands to capture images of eclipses. “It gives you this moment in history, and in time, where you and the earth and the sun and the moon and your outdoor setting are suddenly cast into one tiny event that lasts these two little minutes.”

In fact, solar eclipses are not unusual, occurring somewhere on the planet about every 18 months on average, although often their path takes them over remote areas or oceans.

August’s eclipse, which is slated to turn day to night for no more than about two minutes and 40 seconds shortly after 1 p.m., is spurring excitement nationwide as the first one in nearly 40 years to cross the continental United States.

In February 1979, another solar eclipse swept like a crescent smile across a few states in the Pacific Northwest. But the path of the one on Aug. 21 will take it across the entire breadth of the continent through 14 states from Oregon to South Carolina.

In 1918, another solar eclipse also crossed the entire continental U.S. But the last time one went *exclusively* through the U.S., as it will this summer, was in 1778 when Americans were still called colonists in the midst of the Revolutionary War.

For Missourians, the upcoming view — if the sky remains clear, as current forecasts have it — will be equally historic.

What is known as the eclipse’s path of totality (a 70-mile-wide band on the ground where the sun is seen as totally blocked by the moon) cuts across much of the middle of the state on a centerline that leads from St. Joseph to Columbia and through Cape Girardeau.

The fact that some parts of Kansas City and St. Louis are both inside the path is highly significant.

The last time what’s now the Kansas City area had such a view was more than 200 years ago, on June 16, 1806, when explorers Meriwether Lewis and William Clark were trekking back from the Pacific Northwest. (They were dealing with snow in what’s now Idaho.)

Rarer still? The last time the path of totality came so close to what is now St. Louis was in the year 1442, nearly six centuries ago and 50 years before Christopher Columbus stepped foot in the New World.

In other words, consider getting yourself a pair of solar glasses.

Another total solar eclipse is slated to cut though much of the U.S., from Texas up through Maine, on April 8, 2024. Likely to be equally exciting, its path of totality will include the lower southeast portion of Missouri near the boot heel. That eclipse is not running coast-to-coast.

“It is a once in a lifetime opportunity to have the first coast-to-coast eclipse like this since 1918,” said Nicholeen M. Viall, a research astrophysicist at NASA Goddard Space Flight Center in Greenbelt, Md. “It’s more than a once in a lifetime opportunity. It’s a once in a couple of lifetimes opportunity.”

From Oregon to South Carolina, that opportunity isn’t being squandered.

Some 200 million people are said to live within one day’s drive of the eclipse’s path of totality. Pick a town or city inside the path of totality and you’re likely to find a citywide party or, because the eclipse falls on a Monday, a three or four day festival.

That especially is true of Missouri towns such as St. Joseph, Columbia, St. Genevieve or Lathrop (with a population of 2,000 that has [its own eclipse website](https://www.lathropeclipse.com/) counting down the seconds) that are on or nearest to the path’s centerline.

The total eclipse will be visible from every point within the 70-mile-wide path of totality, including in parts of Kansas City. But it lasts the longest — around two minutes and 40 seconds — along the centerline. The farther north or south you get, the shorter the time of totality.

“Oh, my gosh, I think this is probably the biggest deal we’ve ever had in our history,” said Beth Conway, spokeswoman in the St. Joseph visitors bureau. The town’s already historic, renowned for the Pony Express and as the place where the outlaw Jesse James was gunned down.

Neither of those, however, were ever predicted to bring 50,000 to a half million people (a wide and wild range, Conway conceded, with the number based on what other cities in the path of eclipses have experienced worldwide) to a community of 77,000 residents in a single weekend.

“The hotels in St. Joseph, I think there are eight or nine, they’re already almost booked,” Conway said. “There are three houses in St. Joe that are renting for $1,000 a night. We have RV parks that are sold out for over a year. We have two regular campgrounds sold out for a year. We can say, on average, you can expect everyone in St. Joe to be entertaining at least two visitors.”

Isobel McGowan, owner of St. Joseph’s four-room Shakespeare Chateau bed and breakfast, said she knew nothing of the eclipse until 2014 when she was contacted by an individual from Spain asking to book a room three years in advance.

“I had no idea what the deal was,” McGowan said. “Then, as it started to unfold, it became clear this is going to be a huge event. I’ve been sold out for well over a year and a half.”

Conway, too, admits that no one in charge of the city had a clue that it was the centerline of a historic solar eclipse until the city’s visitor’s center received an email in October 2013. It came from a gentleman named Mark Carter, and read:

*I am planning to visit St. Joseph in August of 2017. Believe it or not, St. Joseph will be one of the BEST places in the U.S. to view the total eclipse on August 21 of 2017. I would like to know of any parks or any other open areas (with few trees or other obstructions) that would be best for viewing an eclipse. This will be my first total eclipse, and I am trying to make it as great an experience as possible. Thank you for your input. —MC*

A visitor center employee forwarded the note to Conway and attached a comment, “Who knew?” Then, that same day, she sent another email, as Conway recalled, that said, “This guy is serious. They even have a website about it.”

Although intriguing, it was just one note from one person.

“We blew it off for a few years,” Conway admitted, “thinking, ‘OK, whatever.’ But then we started getting wind that someone had rented our memorial airport.”

That led to a call to Michael Bakich, a senior editor at Astronomy magazine, whose wife grew up in St. Joseph and whose in-laws still live there.

“We had an incredible two-hour talk with him,” Conway said. “He was the first one to tell us, ‘You will see hundreds of thousands of people. This is the first one we have had in the United States since 1979.’ ”

The city hopped on board. An annual city festival has been planned for that weekend. Astronomy experts are flying in. At least 10 public watch parties will be spread across the city at venues that include a vineyard, a mall parking lot, the Pony Express Museum as well as the Rosecrans Memorial Airport where tent and RV camping sites are being rented for $40 and $50 a night.

Across the state, it’s likewise. Community eclipse task forces have been coordinating for upward of three years with all manner of officials: police, fire, hospital, ambulance, state highway patrol. An eclipse bike ride along the Katy Trail is planned to end in Jefferson City where, near the capitol, another festival is planned.

Major roads near the centerline are expected to be jammed. The Missouri Department of Transportation anticipates 1.2 million out-of-state visitors packing Missouri’s roads over the four-day weekend.

Given the potential crush of humanity, or prospect of being caught in highway traffic for hours, oft debated is how necessary it is for viewers to try to get to the centerline of the path of totality. Do you have to be directly at the center?

Some skywatchers argue that being at the centerline is as pure as the experience gets. Others, however, insist that as long as one is in the 70-mile-wide band of totality, the experience is still spectacular.

The only significant difference between being at the centerline, or say, some miles away on a farm, on a rural road, in a more distant city or in your backyard is the length of time the total eclipse will last.

From start to finish, the entire eclipse event takes a long time. It takes about three hours for the moon to gradually approach the sun, to then begin to cover it in different phases of partial eclipse, and then to cover it totally and move off and away.

But the actual time of totality, the epic moment when the sun’s face is fully covered and day turns to night, is actually very quick. Even along the centerline, where the totality lasts the longest, the sun will be obscured for only about two minutes and 40 seconds.

What is the cost of viewing off of the centerline? The time of totality decreases the further north or south that one moves from the centerline. But that’s the prime difference.

“If you’re in the path of totality, which is 70 miles wide, you’ll see a total eclipse,” said Christopher Godfrey, a professor of physics at Missouri Western State University, which is only a quarter mile from the centerline. “You wouldn’t notice the difference.”

For millions of skywatchers that might do just fine.

Consider that while in St. Joseph the totality will last about two minutes and 40 seconds, in Atchison, Kan. — yes, the northeast corner of Kansas is in the path — the totality will last two minutes and 20 seconds.

In Liberty, it’s two minutes and seven seconds. At Kansas City International Airport: one minute and 56 seconds. Farther south in Parkville, the totality is to last one minute and seven seconds.

In the north parking lot of The Kansas City Star, which is actually at the very edge of the path of totality, the total eclipse will last a lowly three seconds. In the south parking lot, no total eclipse.

That raises an important point:

Just because an area is not inside the path of totality doesn’t mean a viewer won’t see something. The entire country will get to see some degree of partial eclipse which, for many people, may be perfectly acceptable.

The lawn of the Nelson-Atkins Museum of Art, for example, is outside the path of totality. From there, the sun will still be 99.9 percent covered by the moon.

From Overland Park, it will look to be 99.6 percent covered.

Even in Dallas or Miami, viewers will see a partial eclipse in which the sun is 80 percent obscured.

Godfrey of Missouri Western did caution that a total eclipse and a partial eclipse are two very different phenomena.

“There is a very stark line between darkness and daylight,” he said. “Even if the sun is 99 percent covered, the sun is still bright. Even a small portion of it will illuminate the earth.”

In other words, weather willing, being in the path of totality is the only way to get the total experience.

Read more here: <http://www.kansascity.com/news/local/article161298218.html#storylink=cpy>