



# THE OBSERVER

The Newsletter of Central Valley Astronomers of Fresno

Fall 2017

## The Great American Eclipse August 21, 2017



The eclipse in totality-Image  
by Fred Ringwald

Reports and images  
and from CVA  
members along the  
totality path and at  
home.

-California

-Oregon

-Idaho

-Missouri

Plus-looking ahead  
to the October 23,  
2023 and August 8,  
2024 solar eclipses

## Central Valley Astronomers

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www.cvafresno.org

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*(I originally wrote this for a Facebook post on the evening of August 21. I am repeating it here, using the author's prerogative of editing and polishing it.)*

In the evening, when it was all over and we returned to St. Louis and were having dinner at a pizza restaurant near our motel, one of the employees asked Aileen and I if we had seen the eclipse. After we said yes and explained where we were and what we were doing at the time, he replied, "It was a magical event." and his words struck me. It was in fact a magical event, something beyond our everyday thinking and comprehension, something that gave us a real sense of imagination and wonder, and lifted our spirits and hopes. I've heard much the same from so many other people throughout the country in the last twelve hours or so. Maybe this came along at exactly the right time; it was what this nation needed during this time of turmoil and uncertainty, a transcendent event to make us all realize that there's something far greater than ourselves out there, something that made us forget for at least a little while about the troubles this country is experiencing. Maybe it's enough to propel us into a new and better era. Carpe Diem. We need to seize the moment and continue it into the future.

Or maybe it's what was intended all along.

Larry Parmeter  
Observer editor

A final eclipse comment from the editor-

Maybe it was ironic, but Carbondale, Illinois, which was widely publicized in the media as the prime viewing site in the Midwest, and is only about forty miles from Ste. Genevieve, Missouri, was mostly clouded out on eclipse day; viewers got only a few brief sightings lasting about ten minutes total. In the meantime, those of us in Ste. Genevieve, which was barely mentioned by anyone, were treated to outstanding views from beginning to end. On April 8, 2024, Ste. Genevieve will again be in the totality zone, and I plan to be there.

**Number of extra-solar planets found as of September 2017-3,670**

**How many more are out there-tens of thousands?**

**Hundreds of thousands?**

# Rexburg, Idaho-

Fred and Debi Lusk-

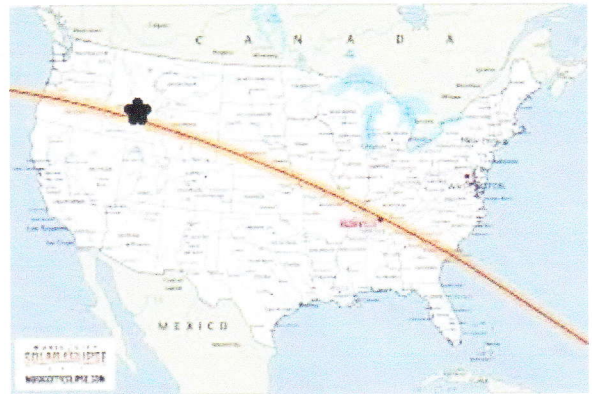
Porter Park-crowd est. 2,500 people

Clear skies

First contact at 10:15am

Totality at 11:33 am 2 min 17 sec

Fourth contact at 12:58 pm



**"I have seen at least a half-dozen partial solar eclipses, including the annular in 2012, but this was my first total solar eclipse. The difference between a partial solar eclipse and a total solar eclipse is like the difference between Little League Baseball and winning the Worlds Series."-Fred**

**"I had seen the annular eclipse in 2012 near Redding, California. This total eclipse was just so much more. More majestic, more heart-stopping, and more astounding visually. I wanted to take photos but couldn't, I sat mesmerized. I sat with 2500+ people who were stone silent when the**

**eclipse was at its maximum, but bookended by cheering and applause at the first contact and the diamond ring.-Debi**

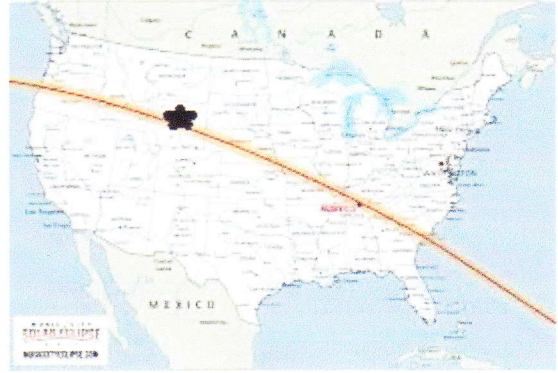
# Casper, Wyoming

Alan Birnbaum

Number of people-Tens of thousands in the Casper area- 100+ in Alan's immediate area several miles east of downtown

Skies clear

Totality at 10:42 MDT, lasting 2min 25 sec



“Certainly it was worth taking five days out of my life to see at least one total solar eclipse, even if it did take us over eleven hours to get back to Denver. This is an event which, in a few minutes, proves to one and all that Copernicus generated a correct understanding of how the universe works, such that ‘celestial mechanics’ are exact and mathematically proven.” -Alan



# Stanley, Idaho

Singleton Thibodeaux-Yost

Working with the Lunar Planetary Lab University of Arizona, Tucson, Arizona

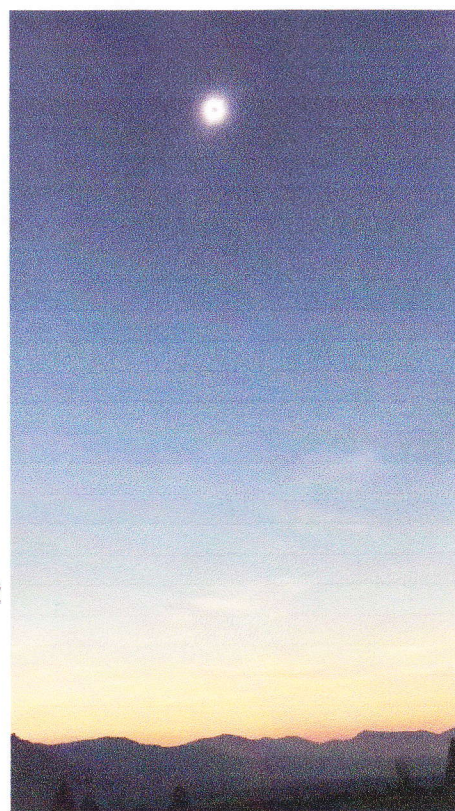
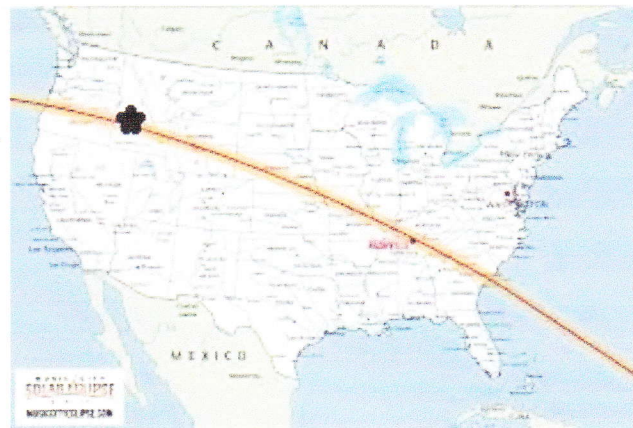
8 people in group

Clear skies

First contact-10:15am

Totality at 11:28 am

Fourth contact-12:45pm



“The temperature change was very drastic. And the way the landscape changed was very eerie...and when the stars came out it was amazing. It was also VERY FAST. All of the sudden it was over. The best part were the coronas you could see with your bare eyes. It was beautiful.”

-Singleton

# Clovis, California

Dan del Campo

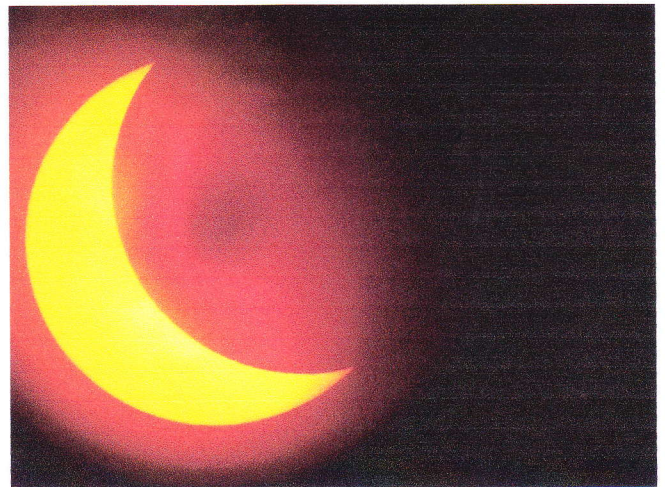
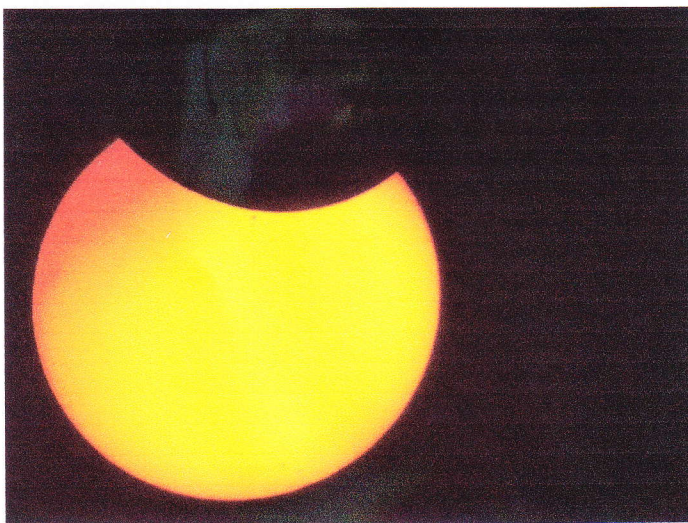
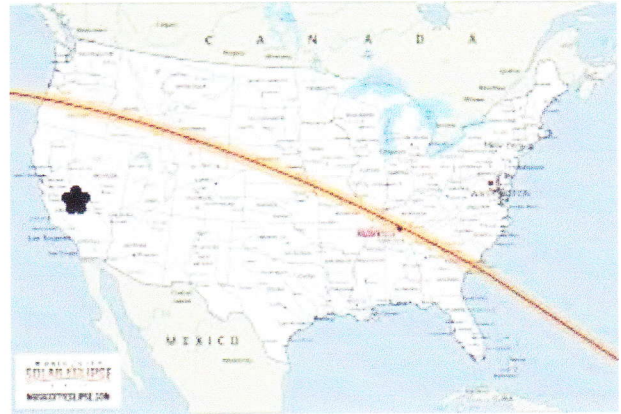
Clovis Community College

Crowd-est. 400+ people

First contact-9:03am

Maximum coverage(73%)-10:20am

Fourth contact-11:45am



“I can tell it got a bit darker, and it cooled off. The best experience was showing a lot of the students the sun who had never seen an eclipse before. The school also set up a big-screen TV showing the NASA live feed of the eclipse. Wasn't totality, but a wonderful experience.” -Dan

# Ste. Genevieve, Missouri

Larry Parmeter

Ste. Genevieve County Community Center

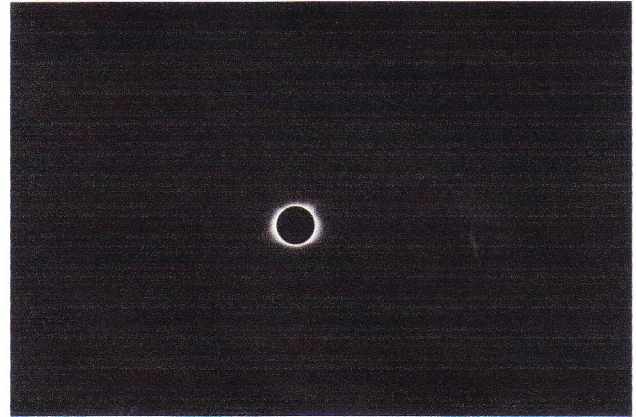
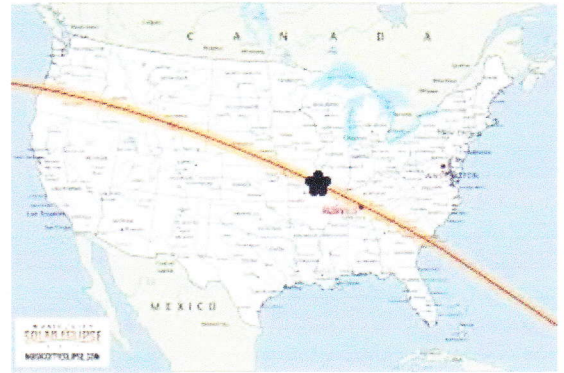
Crowd estimate-1,500 people

Mostly clear, a few clouds

First contact-11:50am

Totality at 1:17pm-2min 40 sec

Fourth contact-2:43pm



“This is something that those of us in the amateur astronomical community have waited for for a long time...” -Larry

# Lebanon, Oregon

Ian Clark, Shawn Clark, Garrett Weimer

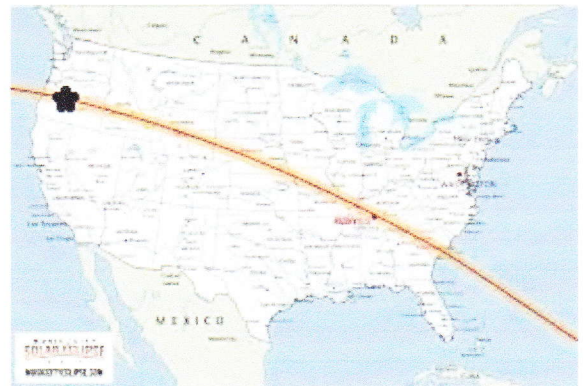
Number of people-25-30

Clear skies

First contact-9:04am

Totality 10:18 am 2min 2 sec

Fourth contact 11:38am



“I wasn’t expecting to be awed by totality, but the view of the corona and the twilight sky was phenomenal. Now I get it.”-Shawn

“I thought it was an amazing experience to witness totality. To be able to see the corona was incredible, and also being able to see the solar prominences...” - Ian

# Madras, Oregon

Greg Lewis, Brian Bellis

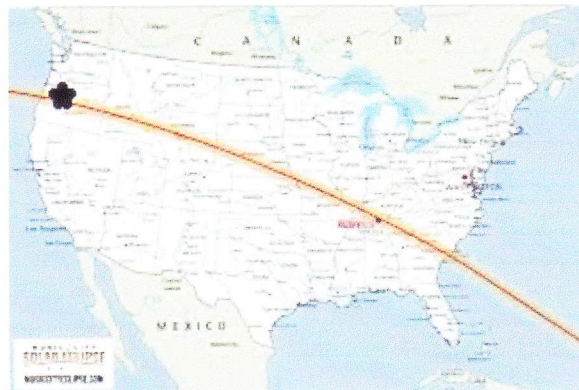
Number of people-100,000+ est. throughout the town and surrounding area

Clear skies

First contact-9:06am

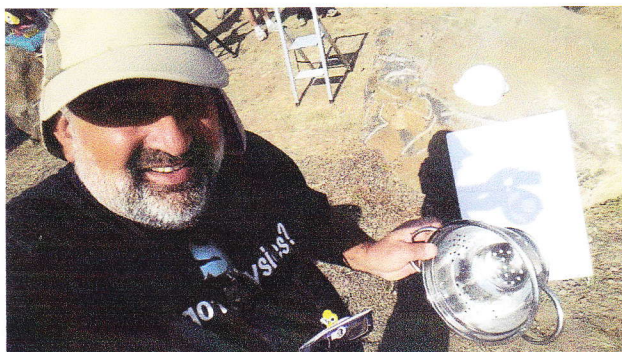
Totally-10:20am 2 min 3sec

Fourth contact-11:41am



“It blew my brains out. Already I am planning to go to South America for the next one...”-Greg

“The experience was completely transcendental and far too brief...Although I can understand why some might enjoy the eclipse alone or in a small group, the energy and excitement of a large group made the event truly spectacular. As soon as totality was over, everyone wanted to share the experience as they enjoyed it. Everyone I was with expressed that they would have loved it if the eclipse had lasted longer and would definitely be traveling to see another one...” -Brian





# Chilly, Idaho

Cynthia Waldheim

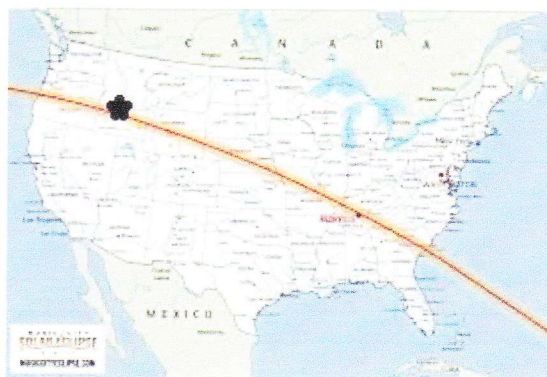
Viewing site at the foot of Mt. Borah

Est. crowd-12 to 15 people

Clear skies, slightly smoky

First contact @10:15am

Totality at 11:30am



“It got cold. The darkness roared toward us. Stars and planets appeared. It looked like a 360 degree sunset above the surrounding mountains. The corona was spectacularly beautiful. No photograph could do it justice.” -Cynthia

# Chemult, Oregon

Steve Harness

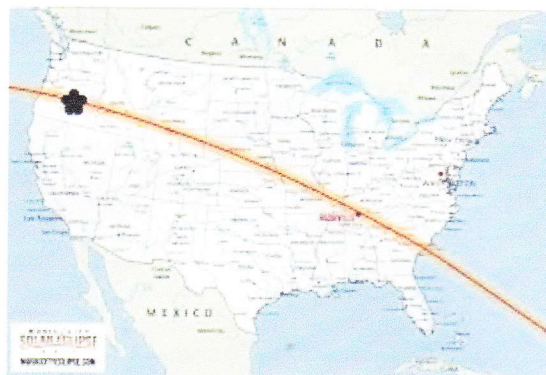
Number of people-30+

Skies slightly hazy from fires

First contact-9:05am

Totality(97%) 10:19 am 2 min 3 sec

Fourth contact-11:39am

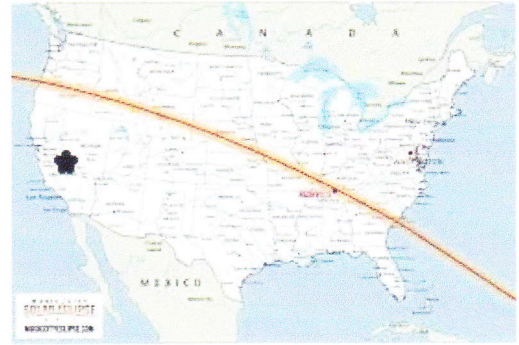


I was amazed how much sunlight was present with only 3%...”-Steve



# Fresno, California

Scott Davis, Khalad Alkotob, Abi Mikow  
Clear weather  
First contact-9:03am  
Maximum coverage(73%)-10:20am  
Fourth contact-11:45am



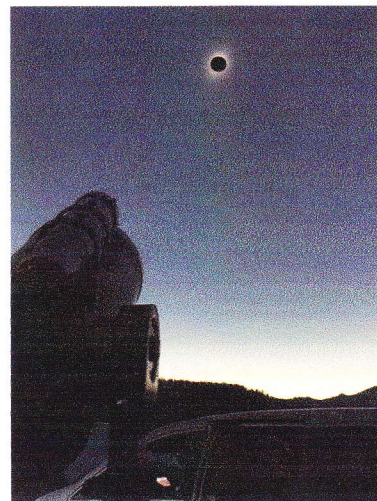
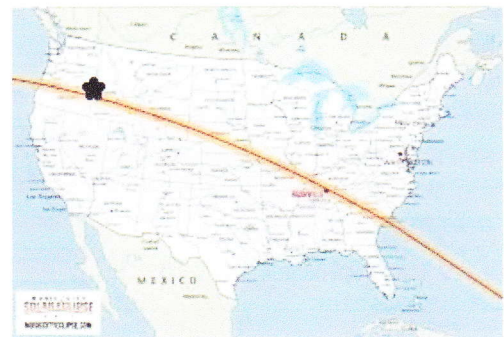
“I was shocked in a couple of ways – how much of the sun appeared covered at 73%, yet just how bright it still was even with only 27% of it showing. Several of my co-workers called it the Pacman Sun.” -Scott

“You need to stop looking at the sun and notice the actual darkening around you...” -Khalad

“It looked like the cookie monster took a big bite out of the sun. It was a once in a lifetime opportunity...” -Abi

# Smith's Ferry, Idaho

Pete Hadley  
Number of people-about 25, including a couple from Israel  
Skies clear  
Totality at 11:30 2min 13 sec of totality



“We were on the centerline so we experienced the entire totality...Wonderful-uncrowded...a spot with a wide horizon...”- Pete

# Metolius, Oregon

Fred Ringwald

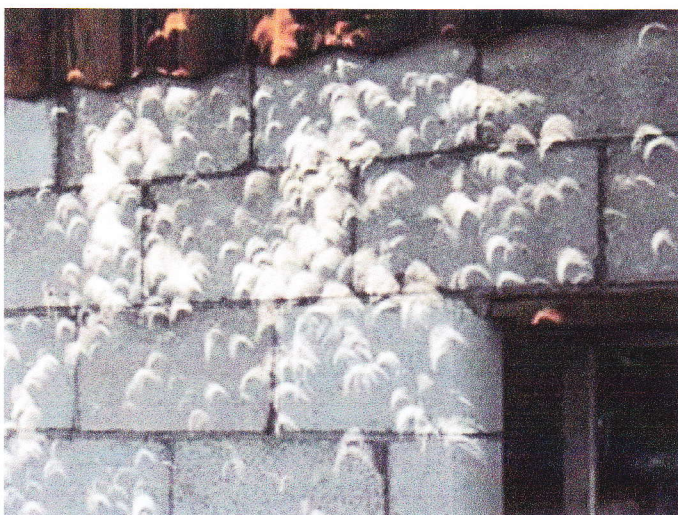
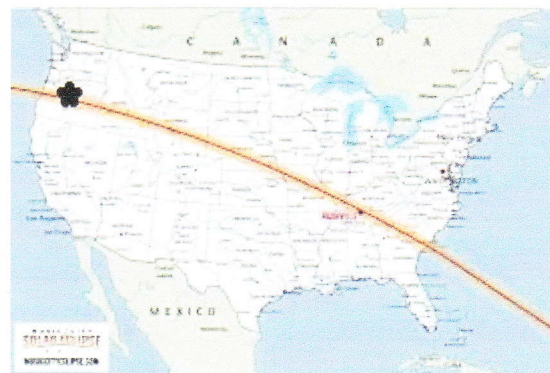
Number of people in group-11

Clear skies, but a bit of haze from fires

First contact-9:06am

Totality-10:19am 2 minutes of totality

Fourth contact-11:41am



“One word cannot express a total solar eclipse. “When is the next one?” is what people usually say. It’ll be July 2, 2019 and it will go over a major observatory, Cerro Tololo Interamerican Observatory in Chile. I intend to submit a proposal to use the 4m telescope and its high resolution spectrograph to get a spectrum of the solar chromosphere...spending a night on Cerro Tololo during new Moon is always a treat!” -Fred

# Eclipses in the Near Future

The August 21, 2017 solar eclipse, was of course, not the only one. Solar eclipses are actually fairly common, occurring on average about every six months. So, here are the solar eclipses for the next several years, leading up to the American total eclipse on April 8, 2024.

February 15, 2018-partial eclipse(Antarctica, South America)

July 13, 2018-partial eclipse(Southern Australia)

August 11, 2018-partial eclipse(northern Europe, northeast Asia)

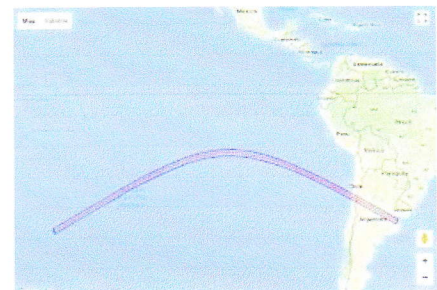
January 6, 2019-partial eclipse(northeast Asia, north Pacific)

July 2, 2019-total eclipse(South America)-path at right

December 26, 2019-annular eclipse(Asia, Australia)

June 21, 2020-annular eclipse(Africa, southeast Europe, Asia)

December 14, 2020-total eclipse(southern South America, Antarctica, Pacific)



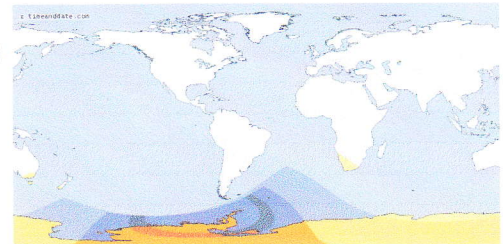
The July 2, 2019 eclipse

June 10, 2021-annular eclipse(Canada, Arctic, northeast Asia)

December 4, 2021-total eclipse(Antarctica)

April 30, 2022-partial eclipse(Pacific, southern South America)

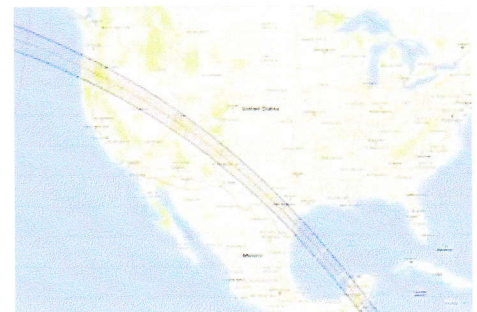
October 25, 2022-partial eclipse(Europe, northeast Africa, Mideast, western Asia)



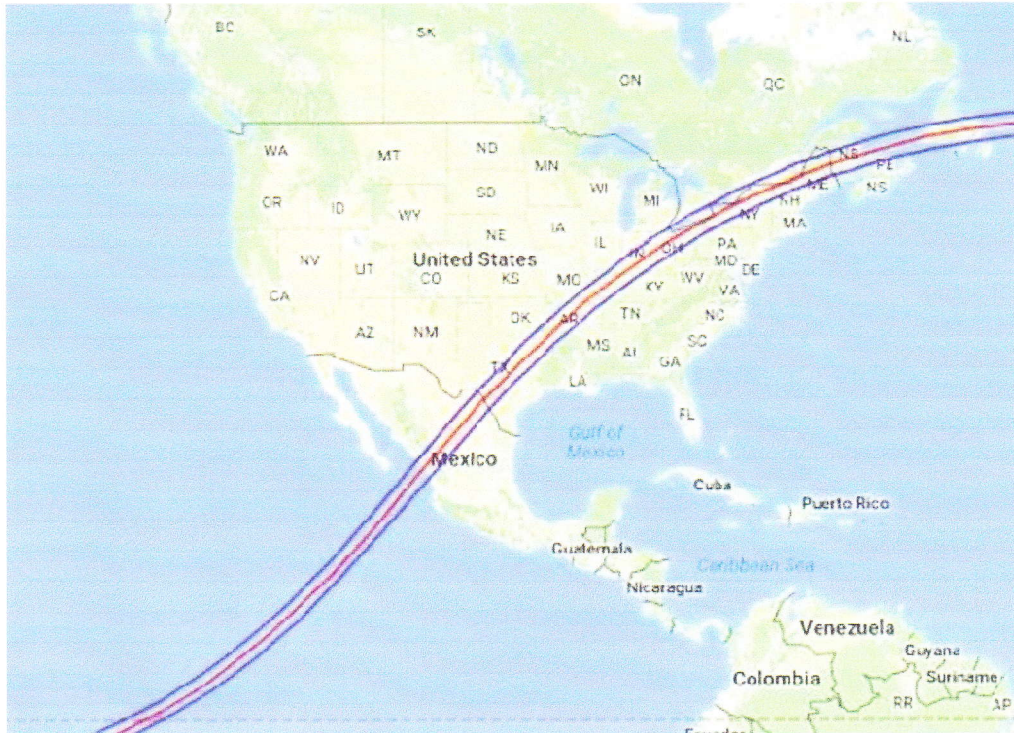
December 4, 2021 eclipse

April 20, 2023-hybrid eclipse(southeast Asia, Australia)

October 14, 2023-annular eclipse-will go through the western and southwestern part of the U.S—map on right. It will enter the U.S. in central Oregon, sweep through Nevada and Utah, pass directly over Albuquerque, New Mexico, and also over San Antonio and Corpus Christi, Texas, before heading south into Central and South America.



# The Next Total American Eclipse-April 8, 2024

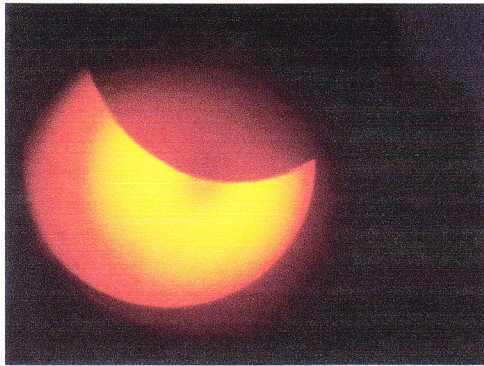


The total solar eclipse of April 8, 2024 will begin in the south Pacific, come on land in western Mexico, sweep through Texas and the Midwest, the Great Lakes states, along the eastern border with Canada, and finally head out over the Atlantic after cutting through Newfoundland. Probably the best places to see the eclipse will be in Mexico and Texas, which guarantee relatively clear skies, but good viewing could be anywhere along the totality path. This eclipse will have a much longer totality time than the 2017 eclipse; the point of maximum totality will be in northcentral Mexico, with well over four minutes of darkness, almost double that of the 2017 eclipse.

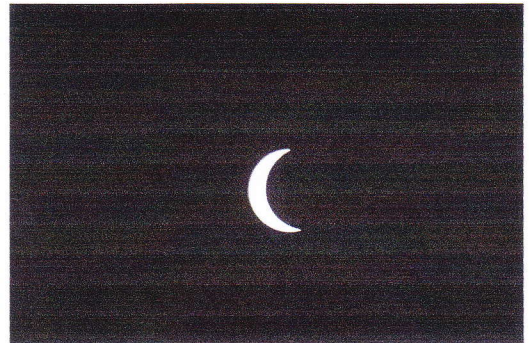
The paths of the 2017 and the 2024 eclipses will cross near Carbondale, Illinois, and that city, the home of Southern Illinois University (in a previous *Observer* issue, I mistakenly referred to it as the University of Illinois, which is actually in Urbana-Champaign, north of Carbondale. When I arrived in Missouri, my family and friends there quickly reminded me of the difference), will once again be the center of attention on April 8, 2024, with tens of thousands of people expected to converge on it for research and viewing.



# Final Words



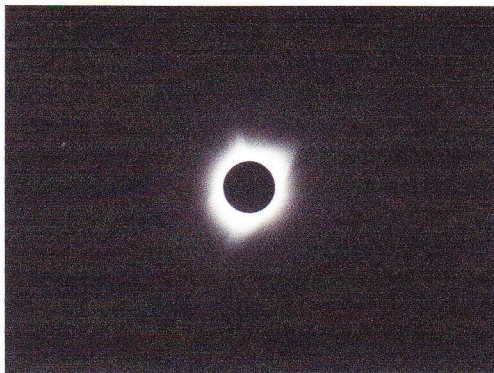
Awesome!-Abi Mikow  
Fulfilling-Brian Bellis  
Wonderful-Pete Hadley  
Unforgettable!-Alan  
Birnbaum



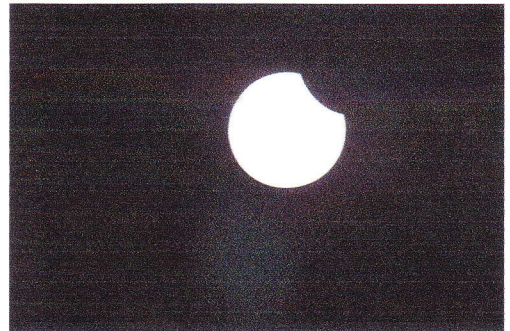
Incredible-Gobind Puniani  
Awe-inspiring-Debi Lusk  
Inspirational-Katlyn Dauer  
Calming-Khaled Alkotob

Perfect-Shawn Clark

Fascinating-Ian Clark



Exciting-Steve Har-  
ness  
Spectacular-Fred  
Lusk



Awe-inspiring-Cynthia Waldman

Wonderful-Pete Hadley

Epic-Singleton Thibodeaux-Yost

Heavenly-Dan Del Campo

Awesome-Scott Davis

Magical-Employee at Mod Pizza in St. Louis

