

# The TEXAS STAR PARTY TSP 2024



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## TSP 2024 TOTAL SOLAR ECLIPSE AND STAR PARTY EVENT PROGRAM

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The TSP and TSP attendees thank those who made this year's TEXAS STAR PARTY possible:

Austin Astronomical Society  
Fort Bend Astronomy Club  
Fort Worth Astronomical Society  
Houston Astronomical Society  
Oklahoma City Astronomy Club  
Okie-Tex Star Party  
Texas Astronomical Society  
Texas Astronomical Society  
San Antonio Astronomical Society  
Astronomical League  
Texas Star Party Officers  
Texas Star Party Board of Directors  
Texas Star Party Operations Managers  
Onsite Vendor Sponsors Listed Below  
Donating Vendor Sponsors Listed Below

And the many **volunteers** who contribute their time to support their fellow amateur astronomers and the public.

In Memory of the following TSP Organizers:  
Barbara Wilson  
John Wagoner  
Don Gardner (Founder)

The  
TEXAS STAR PARTY (TSP 2024)

is organized and operated by  
Texas Star Party, Inc.,  
an IRS 501 (c) (3) Non-profit Corporation

**EVENT SCHEDULE**  
**(ALL TIMES ARE CENTRAL DAY LIGHT  
SAVING TIME UTC -5 HOURS)**  
**Movie Marathon ongoing when the Auditorium  
is not being used for presentations, etc. Schedule  
TBD.**

**Announcement from the Federal Highway  
Administration and Texas Dept. of  
Transportation.**

**Arrive Early! Stay in Place Once You Arrive!  
And Leave Late!**

**Daily Schedule for the TSP 2024 Total Solar  
Eclipse and Star Party Event**

**Friday, April 5<sup>th</sup>, 2024**

9:00 AM to 11:00 AM - Gate and Registration  
Check-In opens for RV's and arriving volunteers.  
1:00 PM to 5:45 PM - Gate, Registration,  
Merchandise Sales and Vendor Area open for all  
attendees  
6:00 PM to 6:45 PM - **Dinner**  
7:00 PM to 9:00 PM - Gate and Registration Open  
for All attendees and RV'S  
6:00 PM - RVs must arrive before this time  
7:00 to 8:30 PM - **Welcome Address and Evening  
Speaker See Evening Speaker Scheduling**  
9:00 PM - Gate and Registration close  
9:00 PM **Dark-out Rules Apply**

**Saturday, April 6<sup>th</sup>, 2024**

8:00 AM to 8:45 AM - **Breakfast**  
9:00 AM to 5:00 PM - Gate, Registration,  
Merchandise Sales and Vendor Area open for all  
attendees (*See earlier note about vendors*)  
9:00 AM – 11:30 AM Recreation Activities

12:00 PM to 12:45 PM **Lunch**  
 2:00 PM – 4:30 PM Recreation Activities  
 Afternoon presentations: See Speaker Schedule  
 5:00 PM - RVs must arrive before this time  
 5:45 PM - Gate, Merchandise Sales and Vendor Area Closed. If needed Registration, will remain open until 9:00 PM.  
 5:30 PM to 6:15 PM - **Dinner**  
 7:00 to 8:00 PM - **Evening Speakers See Speaker Schedule**  
 8:00 to 9:00 PM - Great Texas Giveaway Part I (Must Be Present to Win!)  
 9:00 PM - Gate and Registration close  
 9:00 PM **Dark-out Rules Apply**

**Sunday, April 7<sup>th</sup>, 2024**

8:00 to 8:45 AM **Breakfast**  
 9:00 - 9:30 AM **Solar Viewing Safety Briefing**  
 9:00 AM to 4:45 AM Gate, Registration, Merchandise Sales and Vendor Area open for all attendees  
 10:00 to 10:45 AM **Church Services in the Auditorium Featuring: Terry Johnston – Director of Waco Regional Baptist Association and Doug Butler – Song Leader and Professor at Baylor University.**  
 12:00 PM to 12:45 PM **Lunch**  
 4:45 PM Gate, Registration, Merchandise Sales and Vendor Area closes  
 5:30 PM to 6:15 PM - **Dinner**  
 7:00 to 8:00 PM - **Evening Speakers See Speaker Schedule**  
 8:00 to 9:00 PM - Great Texas Giveaway Part I (Must Be Present to Win!)  
 9:00 PM Dark-out Rules Apply

**Monday, April 8<sup>th</sup>, 2024**

8:00 AM to 8:45 AM - Breakfast  
**9:00 AM to 10:45 AM** Gate open.

10:00 AM TSP Speaker: Ted Saker: **Safety Briefing on how to safely view and image the April 8<sup>th</sup>, 2024 Total Solar Eclipse**

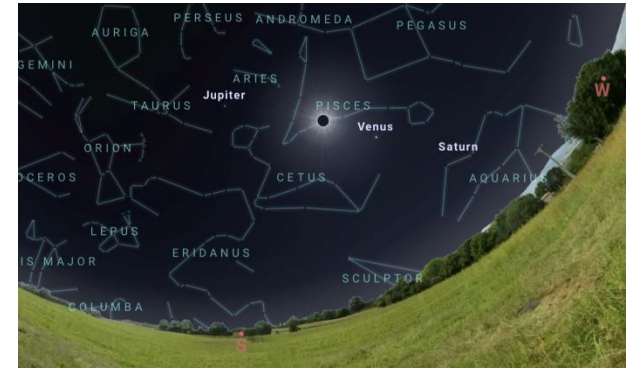
**10:45 AM Gate is closed and locked**  
**11:00 PM to 11:45 PM - Lunch**

**Texas Star Party's TSP 2024 Total Solar Eclipse and Star Party Event**



*April 8<sup>th</sup>, 2024, Total Solar Eclipse*  
*Duration 4 minutes and 23.3 seconds*  
 12:20:58 - First Contact: The Old Moon touches the Sun on its way to becoming a New Moon

**13:38:18 - Second Contact: Start of Totality**



**Image credit:**  
<https://dyer.vanderbilt.edu/teacher-resources/solar-eclipse/>

**Look for these stars.**  
**Can you see the constellations?**  
**What planets are visible?**  
**Can you see Comet 12/P Pons-Brooks?**



**Image credit:** Eliot Herman, Retired professor – University School of Plant Sciences. Image of Comet 12/P Pons-Brooks using two remote telescopes in Utah.

**Can you see the horns?**



**1:42:41 Third Contact: End of Totality**  
1:42:41.1 PM Baily's Beads Start Looking



1:42:52.6 PM Baily's Beads Gone  
3:00:57.2 Fourth Contact Eclipse is over, and the New Moon leaves the disk of the Sun.

3:15 PM – Gate Opens  
5:30 PM to 6:15 **Dinner**  
TBD Gate Closes  
7:00 PM Movies in the Auditorium  
9:00 PM **Dark-out Rules Apply**

### **Tuesday, April 9<sup>th</sup>, 2024**

8:00 AM to 8:45 AM - **Breakfast**  
10:00 AM Check-out Time – Make certain that you have left your rooms-accommodations clean of all trash and litter.

**If the roadways outside of the venue have cleared, please exit the property.**

### **Featured Speaker's**

### **Friday April 5<sup>th</sup>, 2024**

- 7:15 to 7:30 PM Ted Saker, Esq. – TSP Treasurer: **Welcome to All TSP 2024 Attendees**
- 7:30 to 8:30 PM Dan McGlaun - Veteran Eclipse Chaser and Mathematician: **A**

survey of the fascinating history of how eclipses are calculated by the **Babylonians to current times using data from the Lunar Reconnaissance Orbiter without the math.**

### **Saturday April 6<sup>th</sup>, 2024**

- 10:30 11:00 AM Dan McGlaun – **Eclipse Viewing and Imaging Safety**



- 2:00 PM Saturday Speaker: Rob Gallucci - **Photographing A Solar Eclipse**
- 3:00 to 3:45 PM ZWO Product Tour: Speaker: Sam Wen **The New Era of Astrophotography Has Began**
- 4:00 to 4:45 PM Speaker: Brian Lada – **Solar Eclipses impact the weather causing clouds, temperature drop and storm impact. How will a 4-minute total solar eclipse influence the weather?** AccuWeather's Astronomy and weather expert
- 7:00 to 8:00 PM Speaker: Dan McGlaun - **Veteran Eclipse Chaser: The Excitement of Eclipses! When is the Next One? But of Course, Monday!**

### **Sunday April 7<sup>th</sup>, 2024**

- 3:00 to 3:45 PM Sky-Watcher Speaker Kevin LeGore: **Sky-Watcher Product Tour**
- 4:00 to 4:45 PM AAS - Sky and Telescope Speaker: Camille Carlisle - Sr. Chief Science **Editor Behind the Scenes of S&T 's Science Articles (See Attached Abstract)**

7:00 to 8:00 PM Columbia University NYNY – Speaker: David Kipping PhD - **The Power of Eclipses: Transits, Occultations and Syzygies (See Attached abstract)**

### **Special Guests include:**

#### **AccuWeather's**

- Bill Wadell - Public relations manager, multimedia journalist and severe weather expert
- Stephanie Calderonl – Photographer
- Brian Lada - Astronomy and expert
- <https://www.accuweather.com/en/news/solar-eclipse-2024>

#### **AAS Sky and Telescope**

- Camile Carlisle AAS Sky and Telescope Science Editor

### **Onsite Sponsors:**

- APM Telescopes– Marcus Ludes and Dominik Ludes
- Astro-Physics – Roland and Marjorie Christen
- InfiniTees Scientific Apparel – Dirk Kreissig
- Sky-Watcher Jeff Simon, Quynh Simon, Chelsea Bielicki, Richard Wright, LeeAnne Wright, Kevin LeGore and Jarred Donkersely

- ZWO – Sam Wen, Una Tang, Memory Ji, Nancy Guo, Elaine Long and Yi Long

### Donor Companies Participating in our “The TSP 2024 Great Texas Give Away”:

- Agena-Astro
- APM Telescopes
- Bob’s Knobs
- Celestron
- InfiniTees Scientific Apparel
- Kendricks Astro Instruments
- Knightware, LLC
- Photonic Cleaning Technologies
- RGallucci Photography Workshops
- Robert Reeves
- Sky-Watcher
- StariZona
- TeleGizmo
- Televue
- Texas Star Party, Inc.
- ZWO

### Interesting Links:

- Dan McGlaun – <https://eclipse2024.org>
- Marcus Ludes - <https://www.apm-telescopes.net/en/telescopes>
- Bill Wadell AccuWeather <https://www.accuweather.com>
- Brian Lada - Astronomy and expert <https://www.accuweather.com/en/news/solar-eclipse-2024>
- David Kipping, PhD. [www.youtube.com/@CoolWorldsLab](http://www.youtube.com/@CoolWorldsLab)
- ZWO <https://www.zwoastro.com>
- Camille Carlisle AAS Sky and Telescope <https://skyandtelescope.org>
- Sky-Watcher <https://www.skywatcherusa.com>
- Robert Gallucci RGallucci Photography Workshops <https://www.rgallucci-workshops.com>

- Dirk Kreissig InfiniTees Scientific <http://Apparel Infini-Tees.com>

### **Speaker Abstracts Or Bio:**

#### **Dan McGlaun**

Why should you listen to anything I have to say about eclipses? Well, my background is also in math, computer science and technical project management. I do all my own [eclipse calculations](#), and have done them for over 20 years using techniques I learned from masters such as Fred Espenak, Xavier Jubier, Jay Pasachoff, Luca Quaglia and Jean Meeus. I've refined these techniques to the point where I am 100% comfortable offering my results as accurate and complete!

I've had the pleasure to meet and work with all the top individuals in the eclipse world, and I consider all of them (including the people who run other eclipse web sites) to be my friends. This includes the [individuals](#) who are responsible for [making](#) and [certifying](#) the [eclipse glasses](#) that are so critical to [viewing an eclipse safely](#). All these individuals share the passion of evangelizing the [eclipse experience](#), to get people interested and excited about something so unique and inspiring!

#### **Camille Carlisle**

Behind the Scenes of S&T’s Science Articles  
Each month, Sky & Telescope publishes an array of in-depth articles, including stories on the latest research in astronomy. How do

these articles come together? In this talk, Science Editor Camille Carlisle will give you the inside scoop on S&T’s science journalism, from how she and her colleagues find article ideas and authors to the (sometimes grueling) editing and fact-checking process, as well as how illustrations come together. If you’ve ever wondered what goes into creating the stories that appear in S&T and your other favorite science magazines — or even if you’ve never thought about it before — here’s your chance to find out.

#### **Brian Lada**

Brian Lada is a meteorologist and journalist for AccuWeather, specializing in astronomy and space exploration. Brian is known for his expertise in weather forecasting and how the weather can affect the viewing conditions for astronomical events, including meteor showers, planetary alignments and eclipses. He has been with the company for 11 years and made his first appearance on the AccuWeather Network when covering the 2017 Great American Eclipse from Cookeville, Tennessee. In his free time, Brian loves to hike, travel and take pictures of nature, including the night sky.

#### **David Kipping, PhD.**

The Power of Eclipses: Transits, Occultations and Syzygies

Detecting exoplanets should be incredibly challenging. The Earth is a billion times fainter than the Sun and even from neighboring stars it is extremely difficult to spatially resolve. Yet eclipses provide a shortcut, one which astronomers have leaned into over the last two decades to discover thousands of new worlds. In this talk, I will explore the history of eclipses for exoplanet discovery, which has transformed our understanding of planet

formation. We'll see how transits can be used to reveal precise radii, wobbles and even atmospheres. How occultations provide direct photons from distant planets and even maps of distant worlds. And finally, syzygies - the very event we'll witness on April 8 - which have allowed astronomers to measure mutual planet inclination angles and could even reveal exomoons. This whirlwind tour will explore just how fortunate we are the Universe grants us these special moments.