

The High Desert Observer

July 2023



This Month's Meeting - July 28th

IN-PERSON & Zoom, Friday at 7 p.m.
Mesilla Valley Radio Clubhouse
6609 Jefferson Ave. Las Cruces, NM

At the corner of Wilt and Jefferson -- take the Porter exit from US 70, about 5 miles east from the I-25 interchange. Go south on Porter until you come to Jefferson. From there, turn left and go to the corner of Jefferson and Wilt. The meeting will also be available to members via Zoom.

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Tombaugh Lecture Series Speaker for the Month

Steve Barkes

Astronomical Society of Las Cruces



Beyond Imaging: Ready for Science

"Beyond Imaging: Ready for Science": A discussion of opportunities for astronomical imagers to repurpose their existing equipment to generate scientifically relevant data. Topics will include the AAVSO, photometry, spectroscopy and scientific campaigns where the amateur can participate and contribute.

From the President

Tim Kostelecky

Nice surprises are always welcome, but I wasn't sure how this one would turn out early on. Late in May, I received a request from a free-lance writer from Pinos Altos NM, Jennifer C. Olson, whether someone from the ASLC could accompany her to the well-known and certified Dark-Sky Cosmic Campground in the Gila National Forest.



Jennifer was on a tight deadline with New Mexico Magazine, and her article had to be submitted the following week, so the outing needed to be scheduled within just a couple of days. Getting to Cosmic and securing a spot with that short of notice is difficult, and would be tough to accomplish. So I told Jennifer that if she wanted a dark-sky experience that we could organize quickly, perhaps our ASLC-West group out of Deming could arrange something at City of Rocks State Park. I contacted Mike Nuss, our ASLC-West coordinator, and he was gracious in arranging the viewing, along with Bill Nigg, a talented astronomer who helps Mike out with his outreach programs at both the City of Rocks and the Rockhound State Parks.

Unfortunately the moon was approaching first quarter, and any dark-sky observing would necessitate a viewing window between midnight and dawn. Mike and his group got it done, contacting the state park and setting up their Simon Observatory at the site. Starting late in the evening, the group stayed up until the morning twilight as Mike and Bill gave Jennifer their usual illuminating expertise and personal insights. When

all was done, Jennifer thanked them and departed later in the morning.

So the surprise came on Tuesday this week when I received my August issue of New Mexico Magazine. Much of the issue (cover image below) is dedicated to the night skies of New Mexico and sure enough, it features an article titled "Heavens on Earth" written by Jennifer. The piece is superb! She discusses her experiences in night sky observing, along with a very well researched stories of astronomy in New Mexico including some historical items from the indigenous cultures in our area. She interviewed a number of astronomers and groups across the state. Mike Nuss, Bill Nigg, and the ASLC are well represented in her writing.

Jennifer has done a great service in spreading the word on the magic of the New Mexico skies and the passions that exist among those of us who make it part of our daily (nightly) lives. Check out the magazine and article when you get a chance. Thank you Jennifer C. Olson, and thank you Mike Nuss for arranging the event on such short notice.



Featured Article

Super Blue Sturgeon Moon



This article is distributed by NASA Night Sky Network. The Night Sky Network program supports astronomy clubs across the USA dedicated to astronomy outreach. Visit <https://nightsky.jpl.nasa.gov/> to find local clubs, events, and more.

Vivian White - NASA Night Sky Network

On August 1st, catch a full Moon rising in the east just 30 minutes after sunset. We are seeing the entire sunlit side of the Moon as it is nearly (but not quite) in line with the Sun and Earth. The Farmers' Almanac calls this month's Moon the "Sturgeon Moon", for the time of year when this giant fish was once abundant in the Great Lakes. Cultures around the world give full Moons special names, often related to growing seasons or celebrations.

As the Moon rises later and later each night, the bright sunlit part appears to get smaller or "wane" - we call this a waning gibbous Moon. About a week later, on August 8th, we see only one half of the Moon alight. At this phase, the Moon rises around midnight and sets around noon. Have you ever seen the Moon in the daytime? You may notice this phase towards the southwest in the morning sky. Hold up a ball or egg beside it and see how the Sun lights up the same part.

By August 16th, the Moon has gone through its crescent phase and is now only showing its dark side towards the Earth. Did you know the dark side and the far side of the Moon are different? The Moon always shows the same face towards Earth due to the gravitational pull of Earth, so the far side of the Moon was only viewed by humans for the first time in 1968 with the Apollo 8 mission. However, the dark side is pointed at us almost all the time. As the Moon orbits the Earth, the sunlit side changes slowly until the full



Image of waning crescent Moon shown next to a ball on a stick that is lit by the Sun on the same side as the Moon, with trees and a blue sky in the background. Try this with an egg or any round object when you see the Moon during the day!

Credit: Vivian White

dark side is facing us during a new Moon. When the Moon is just a small crescent, you can sometimes even see the light of an Earthshine reflecting off Earth and lighting up the dark side of the Moon faintly.

Then as the Moon reappears, making a waxing (or growing) crescent Moon, best seen in the afternoons. By the time it reaches the first quarter on August 24th, we see the other half of the Moon lit up. At this point, the Moon passes through Earth's orbit and marks the spot where the Earth was just 3 hours prior. It takes the Earth about 3 hours to move the distance between the Moon and Earth.

The Moon on August 30th is referred to as a blue moon. Blue moons are not actually blue in color of course; it refers to the second full Moon in any month. Since it takes 29.5 days to complete the cycle from full to new and back to full, most months will see only one. But occasionally, you'll fit two into one month, hence the phrase "once in a blue moon." We see a blue moon about once every 3 years on average - next in May 2026. In addition, this full Moon appears larger in the sky than any other full Moon this year - an unofficial supermoon. A supermoon appears larger than average because it is closer in its slightly elliptical orbit. The difference in apparent size between the smallest and

largest full Moon is about the size difference between a quarter and a nickel. Even at its largest, you can always cover the whole Moon with your pinky extended at arm's length.

Follow the Moon with us this month and keep a Moon journal if you like - you may be surprised what you discover! moon.nasa.gov/moon-observation



Earthshine as seen from the International Space Station with the sun just set
 - Astronaut Photograph ISS028-E-20073 was taken on July 31, 2011, and is provided by the ISS Crew Earth Observations Facility and the Earth Science and Remote Sensing Unit, Johnson Space Center

Monthly Meeting Minutes

June 2023

John McCullough - Secretary

Call to Order:

Tim Kostelecky, President, Astronomical Society of Las Cruces (ASLC, the Society), called the June 2023 meeting to order at 7:00 pm on 23 June 2023 at the Mesilla Valley Radio Clubhouse. There were fourteen (14) members, spouses, and guests in attendance, as well as eight (8) attendees via Zoom at the start of the meeting.

Tim welcomed the group to tonight's meeting and announced that the minutes from the May 2023 meeting (thanks to John McCullough, Secretary) were published in the June 2023 issue of the Society newsletter, the High Desert Observer (HDO). Tim asked if there were any required additions, deletions, or corrections to the minutes as submitted. A motion to accept the May 2023 minutes as submitted was offered by Bernie Jezercak and seconded by Tracy Stuart. There being no objections, the motion was passed by acclamation.

Tim noted the business meeting following the presentation would be brief so members could support the "Starry Nights" event at the New Mexico State University (NMSU) golf course.

Presentation:

Tonight's Tombaugh Series speaker was longtime ASLC member Nils Allen. His presentation was titled: "Star (Tourism) Wars: Volunteering and Beyond". What is life like serving as a National Park Service night-sky volunteer? And as a professional star-tour guide? Nils described his experiences as one amateur (and spouse Bonnie) who spent 10 years post-retirement roaming the Southwest doing astro-tourism, with telescope-for-hire (or for free, all-depending).

Officer/Committee Reports:

Treasurer:

Trish Conley, Treasurer, was not present. There was no Treasurer's report.

Outreach:

Stephen Wood, outreach coordinator, reported on recent events.

The solar viewing event at the Museum of Nature and Science on 27 May was clouded out, but the Moon Gaze on the Plaza de Las Cruces that evening had a good turnout. The Leasburg Dam State Park (LDSP) event on 10 June had good viewing and about twenty (20) attendees.

Sally (Ride)'s Night at the Museum of Nature and Science on 21 June (Summer Solstice) had a good turnout but the second hour of viewing got cloudy. The "Starry Night" event in conjunction with the Spaceport America Cup is at the NMSU golf course tonight

There will be another Moon Gaze on 24 June and a 3rd Quarter Moon event at LDSP on 15 July. Contact Stephen if you can support any or all events.

Old Business:

There was no old business for discussion.

New Business/Announcements:

Budget – Several items in the 2023 budget have increased since acceptance of the budget. Specifically:

The rental for the Society's US Post office box has increased.

Astronomical League (AL) dues have increased because of ASLC membership increase.

Bernie Jezercak moved that the excess amounts be approved for 2023 and included in the 2024 budget; Joey Benoit seconded. The motion passed.

Former member Ann McFie is selling a 10-inch

Orion. She is asking \$400 for it. Contact Tim for more information and contact info.
 New member – Peter Williams is joining the ASLC tonight.

There was no additional new business offered for discussion.

The June 2023 meeting was adjourned at 8:15 pm.

-Respectfully submitted:
 John McCullough
 Secretary, ASLC

The Astronomical Society of Las Cruces (ASLC) is dedicated to expanding public awareness and understanding of the wonders of the universe. ASLC holds frequent observing sessions and star parties, providing opportunities to work on Society and public educational projects.

Members receive electronic delivery of The High Desert Observer, our monthly newsletter, plus membership in the Astronomical League including their quarterly publication, Reflector, available in either paper or digital format. ASLC members are also entitled to a discount on a subscription to Sky and Telescope magazine.

Annual Individual Dues are \$36; Family \$42; Student (Full Time) \$24. Dues are payable in January and partial year prorated for new members. Please contact our Treasurer, Patricia Conley, treasurer@aslc-nm.org for further information.

Coming Events

Monthly, on an evening close to the first-quarter moon, ASLC hosts a public “MoonGaze” observing session in Las Cruces. We also hold periodic special evening sessions at Tombaugh Observatory on the NMSU campus.

Also monthly, the ASLC welcomes public viewing at the Walter Haas Observatory in Leasburg Dam State Park, located just 20 miles north of Las Cruces. Our 16-inch Meade LX200 telescope at this site is used to observe under rather dark skies.

Keep updated on the dates, times, and locations through this [link](#) with additional information available at our website www.aslc-nm.org as well as our [Facebook](#) page.

ASLC Board of Directors

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The Tulip - Sh2-101 in Cygnus - Bob Kimball



This image was taken from Las Cruces, NM. Lots of sky glow and 95° temperatures. 120 subs.:The Tulip Nebula, also known as Sharpless 101 (Sh2-101), is a H II region emission nebula located in the constellation Cygnus. It is about 6,000 light-years from Earth and about 70 light-years across..

NGC 5907, Knife-Edge Galaxy, in Draco - Jeff Johnson



Here is my latest imaging result from my backyard portable setup, using my TOA-130 (5") scope on my AP1100GTO mount w/QSI 690wsg camera.

Captured the same night as my M51 image on 7 May 2023.