

The High Desert Observer

March 2023



This Month's Meeting - March 24th

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**



Tim Kostelecky

Astronomical Society of Las Cruces

Telescope Eyepieces - A Guide to Navigate the Myriad of Choices

As part of a series of ASLC presentations that Tim Kostelecky has planned on practical aspects of visual observing, this month's topic is concerned with telescope eyepieces, discussing many of the details to be considered when choosing a selection of eyepieces for your system. Whether it be for the beginning observer or those more advanced looking to optimize their viewing experience, Tim will provide helpful information on what can best fit your needs, and your budget.

Tim Kostelecky has been an avid amateur astronomer since his childhood, participating in numerous public outreach programs including during his time as a student at Fort Lewis College in Durango Colorado, the Jefferson County Pine Valley Observatory outside of Denver, the Goldendale Observatory in Washington state, and currently as president of the Astronomical Society of Las Cruces in southern New Mexico. Tim specializes in visual observing and in recent years has tried his hand at digitally processed astro-sketching.

ASLC Member Discovers Suspected Supernova!

Congratulations to ASLC member Chris Brownell, credited with the discovery of suspected Supernova AT2023deu on March 16th, in Camelopardis near IC467, using an OSC camera on a 14" telescope; photometry with MaximDL; magnitude 14.78. Great achievement, Chris!

My Field of View

Tim Kostecky

Perhaps I'm becoming a bit thin-skinned since moving to Las Cruces five years ago, but this past winter seems to have been noticeably colder than I remember in recent history. But then again, Mike Nuss, who coordinates the ASLC-West group out of Deming reported that he had a "miserably cold and windy"



outreach at City of Rocks State Park in December. So much so, after he got home he had to don some Arctic-style outerwear after he got home. That was December, but our outreach program at Leasburg Dam State Park just last weekend...on March 18th... was one of the coldest I remember. Ok, maybe Minnesotans would have been there in short sleeve shirts with the temp in the mid-40s, but I must thank the "brave" Las Crucians who showed up, both as members of our ASLC team, but also about 12 visitors from Las Cruces and some of those camping at the park.

It's been a busy year for outreach so far, with our usual monthly MoonGaze and Leasburg Dam SP programs, along with a special event at Centennial High School and a couple of Elementary School programs. Many thanks to Steve Wood, our Outreach Chair, as well as Steve Barkes and Mark Gorman with their work at the Haas Observatory.

Clear Skies to All,

Tim

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.

Featured Article

Spot the Morning & Evening Star: Observe Venus

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.



By David Prosper

Venus is usually the brightest planet in our skies, and is called “Earth’s Twin” due to its similar size to Earth and its rocky composition. However, Venus is a nightmare version of our planet, featuring a thick, crushing atmosphere of acidic clouds, greenhouse gasses, howling winds, and intense heat at its surface.

This rocky inner world’s orbit brings it closer to Earth than any of the other planets, and is the second closest to the Sun after Mercury. Like Mercury, Venus orbits between our planet and the Sun, so Earth-based observers can observe Venus in the morning before sunrise, or in the evening after sunset – but never high in the sky in the middle of the evening, unlike the outer planets. Since Venus is so striking in its twilight appearances, the planet features heavily in sky mythologies worldwide. Venus’s bright morning and evening appearances are the origin for its dual nicknames: the Morning Star, and the Evening Star. Some ancient astronomers never made the connection, and assumed the Evening Star and Morning Star were two unrelated objects! Observers can even spot Venus during the daytime, if the sky is very clear and the planet is bright enough. Venus also has phases, similar to the Moon and Mercury. Galileo’s observations of

Venus’s phases helped turn the astronomy world upside down in the early 1600s, and you can see them yourself using a telescope or even a surprisingly low-power pair of binoculars. Warning: Please be very careful when observing Venus with a telescope in the early morning or daytime. Never allow the Sun to enter your instrument’s field of view, as you could be permanently blinded.

Venus’s other moniker of “Earth’s Twin” is a bit misleading. In terms of their surface temperatures and atmospheres, Venus and Earth are extremely different! The surface of Venus is warmer than that of Mercury, despite Mercury being many millions of miles closer to the Sun. While Mercury is still a scorching 800 degrees Fahrenheit (427 degrees Celsius), Venus is even hotter: 900 degrees Fahrenheit (482 degrees Celsius). The vast amount of carbon dioxide in the thick Venusian atmosphere acts as an insulating blanket that retains much of the Sun’s heat, creating the runaway greenhouse effect that dominates its present-day climate. The Venusian surface is a crushing 90 Earth atmospheres on top of its

Recent Jupiter-Venus Conjunction



Venus and Jupiter had their closest approach on March 1st. Jupiter is now continuing its descent towards the horizon while Venus continues to climb and will be visible in the evenings through mid-summer of 2023. It's a great year for Venus fans! Image created with assistance from Stellarium.

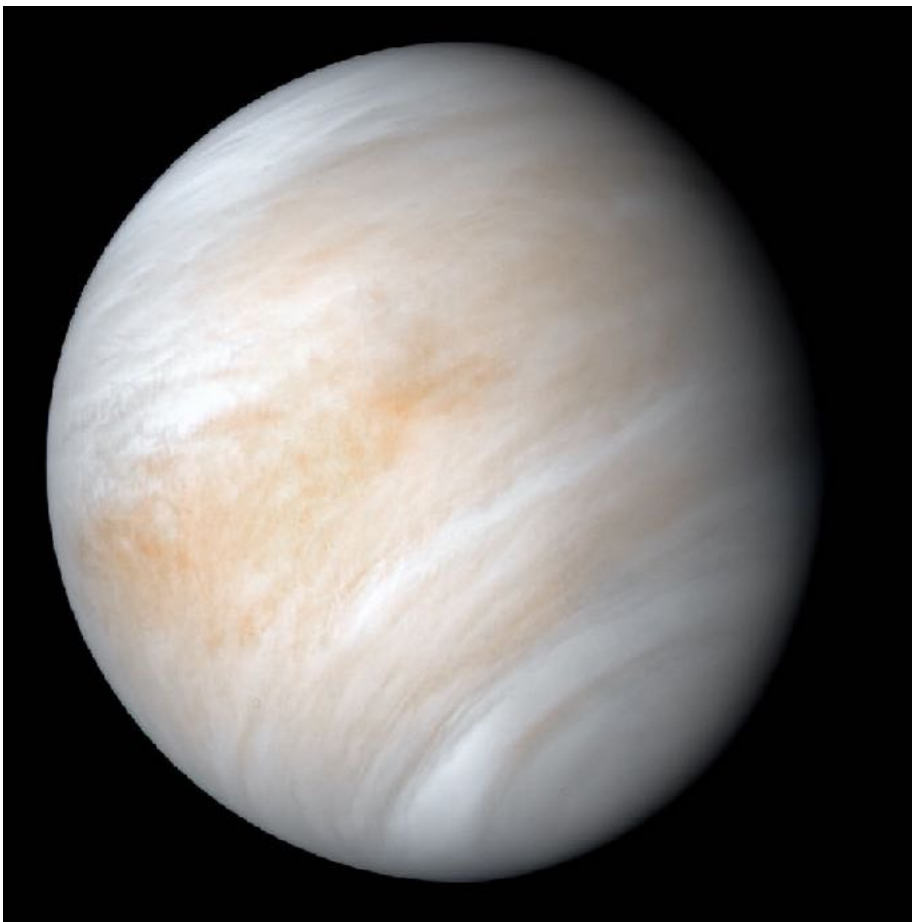
absurd temperatures. These extreme conditions mean that the mission life of any past Venusian robotic landers were measured in hours at best – and usually minutes! However, conditions in Venus's upper atmosphere may be much more hospitable, with temperatures and pressures at 30 miles (50 km) above the surface that are much more Earth-like in temperature and pressure. Studies of the Venusian atmosphere, including seasonal appearances of dark streaks and faint signals of suggestive chemistry, intrigue

researchers with the possibility that some sort of life may persist in its clouds. But far more evidence is needed to confirm such a claim, since non-biological factors like volcanism and other processes could also be the source for these signals.

Thick sulfuric acid clouds block direct visual observations of its surface from optical telescopes on Earth. Multiwavelength observations from space probes show evidence of active volcanoes and

possibly some sort of plate tectonics, but followup missions will be needed to confirm the presence of active volcanism, plate tectonics, and any possible signs of life. In order to do so, NASA is sending two new missions to Venus by the end of this decade: the orbiter VERITAS, which will map the surface in high detail and study the chemistry of its rocks and volcanoes, and DAVINCI+, which will study its atmosphere and possible tectonic surface features via a “descent sphere” that will plunge into Venus's clouds. Follow their development and discover more about Venus at solarsystem.nasa.gov/venus, and of course, continue your exploration of the universe at nasa.gov.

Venus from Mariner 10



A photo of Venus seen from orbit, which appears as a gibbous sphere with light clouds swirling in streaks across its surface, the background is black.

The top layers of Venus's cloud pop in this contrast-enhanced image, reprocessed with modern techniques from Mariner 10 data. Credit: NASA/JPL-Caltech

Source: <https://solarsystem.nasa.gov/resources/2524/newly-processed-views-of-venus-from-mariner-10/>

Monthly Meeting Minutes

February 2023

John McCullough - Secretary

Call to Order:

Tim Kosteletzky, President, Astronomical Society of Las Cruces (ASLC, the Society), called the February 2023 meeting to order at 7:00 pm on 24 February 2023 at the Mesilla Valley Radio Clubhouse. There were twenty (20) members, spouses, and guests in attendance, as well as eleven (11) attendees via ZOOM at the start of the meeting.

Tim welcomed the group to tonight's meeting and announced that the minutes from the January 2023 meeting (thanks to John McCullough, Secretary) were published in the February 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 January 2023 minutes as submitted was offered by Bernie Jezerack and seconded by Tracy Stuart. There being no objections, the motion was passed by acclamation.

Tim noted several new faces in the audience. William "Fritz" and Valerie Baader have moved to New Mexico from Ohio. They started attending events at City of Rocks State Park and have a Celestron they are getting familiar with. Grant Hicok has moved from Minnesota and looks forward to getting more involved with the Society.

Tim introduced tonight's speaker, Steve Barks.

Presentation:

Tonight's Tombaugh Series speaker was ASLC member Steve Barks. His presentation was titled: "Star Trackers for Portable Astrophotography and More...". Steve offered an introduction to star trackers and how they compare to larger, dedicated astrophotography mounts. He explored some of the options available for star trackers and gave a hands-on demonstration using the offering from Sky-Watcher.

Officer/Committee Reports:

Treasurer:

Trish Conley, Treasurer, reported on the status of the Society's accounts. The Society has a net income of \$328 for the fiscal year to date.

Outreach:

Stephen Wood, outreach coordinator, reported on recent events. The Moon Gaze on 28 January at the Plaza de Las Cruces was very successful.

The 3rd Quarter Moon event at LDSP on 11 February had some clouds but attendees eventually got to see the "green" comet. This was also the dedication of the Walter Haas Memorial Observatory at LDSP. Mary Haas Alba (Walter's daughter) and Diana Alba Soular (Walter's granddaughter) were in attendance and participated in the ribboncutting. Plutomania Day was held at the Museum of Nature and Science on 11 February.

The Tombaugh Elementary star party on 16 February had approximately 300 attendees and eight telescopes (including one from NMSU). There was a STEAM (Science, Technology, Engineering, Arts, and Math) night at Desert Hills Elementary last night. There will be a Moon Gaze on 25 February on the Plaza de Las Cruces. There will be a STEAM night at Sonoma Elementary on 03 March. Another 3rd Quarter Moon event at LDSP is planned on 18 March.

There was a "Science Enrichment Day" at Centennial High School supported by Tim Kosteletzky, Ed Montes, and Rich Richins with help from Lorenzo Morales. Rich and Bill Stein supported Career Day at Arrowhead High School. Las Cruces Space Festival will be 31 March – 02 April. Rani Bush reports the Festival committee continues to look for astro-images for the event; she will post more info on the groups.io.

Contact Stephen if you can support any or all events.

ASLCWest:

Mike Nuss, committee chairman, reported that last week's event at Rockhound State Park was essentially "clouded out". The City of Rocks State Park event the next night (18 February) had a good turnout.

Loaner Telescope Program:

Tim Kosteletzky, program coordinator, reported he is getting more interest in the telescopes. One member recently traded out telescopes to try another configuration. Other telescopes are coming back into the program.

Old Business:

Gary Starkweather will host a Messier Marathon at his facility outside Deming the night of 1819 March. Text him for directions.

There was no additional old business for discussion.

New Business:

Longtime member Keith Schirmer is moving out of the area. He is selling his 15" Classic Obsession w/ ServoCat GoTo, several eyepieces, and many

accessories. He has a flyer with the details. He is asking \$3900 compared to today's estimated cost of \$13,000.

Charles Turner has posters of Andromeda and the Pleiades available for use by the Society. They are also available to members.

There was no additional new business offered for discussion.

Announcements:

There were no announcements for the membership.

The February 2023 meeting was adjourned at 8:38 pm.

-Respectfully submitted:
John McCullough
Secretary, ASLC

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John McCullough
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ASLC Board of Directors

		board@aslc-nm.org
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Calendar:	Stephen Wood	Outreach@aslc-nm.org
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Loaner Program:	Tim Kosteletzky	LoanerScopes@aslc-nm.org
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Outreach:	Stephen Wood	Outreach@aslc-nm.org
Website:	Steve Barks	Webslave2@aslc-nm.org
HDO Editor:	Tim Kosteletzky	HDO@aslc-nm.org

Member Images

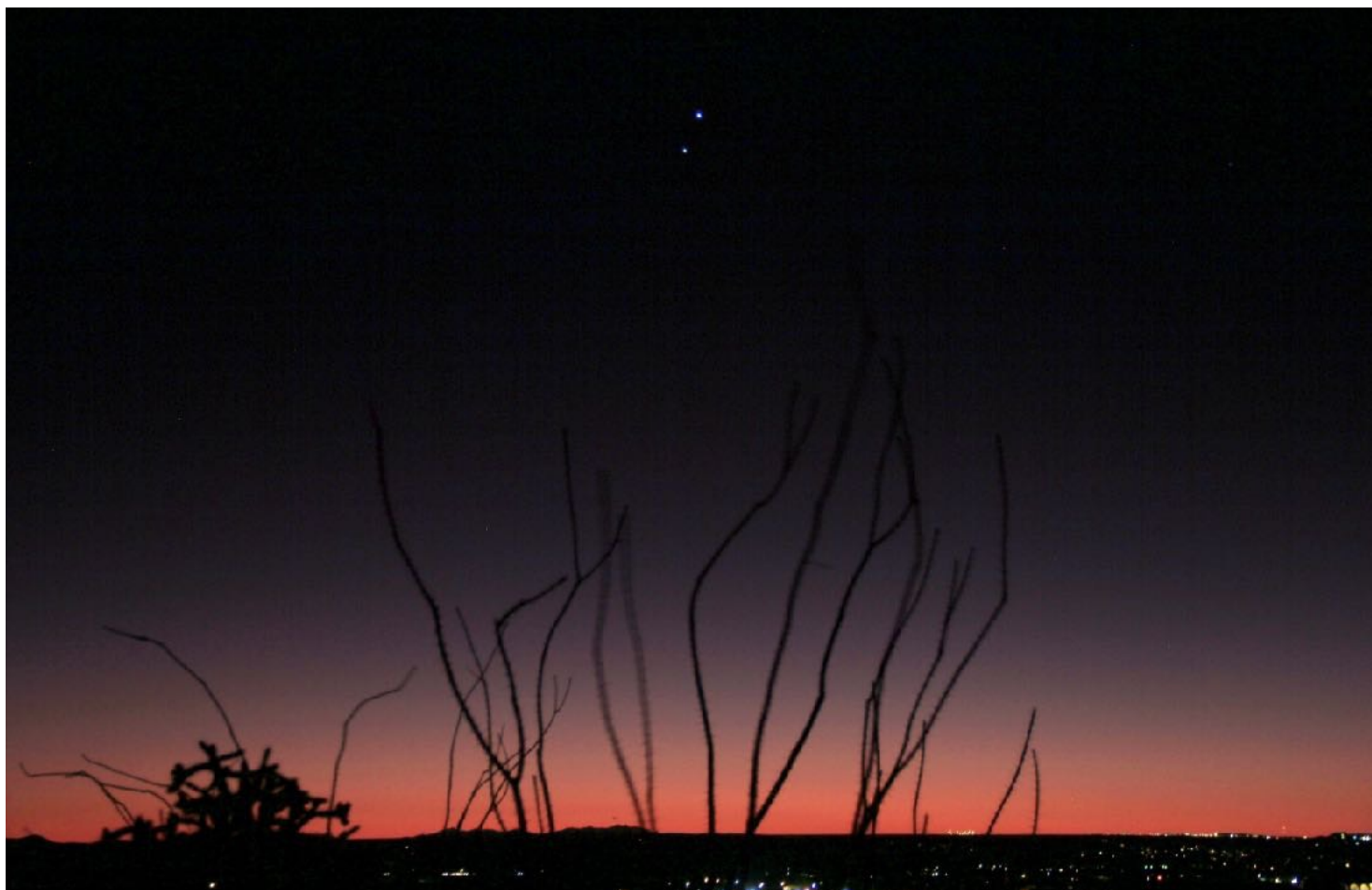
IC 5146 - Cocoon Nebula in Cygnus - Jeff Johnson



Shot with my TOA-130F (5in refractor), EM200 mount, QSI690wsg camera. 7x10mins Lum, 2x5min each RGB.

My previous attempt at the Cocoon, however, with the TOA was at my old house in town... I had to use Ha to get around the severe LP. Now with no narrowband needed where we live now, in this image (attached) was the first time I noticed those two very distant galaxies at about 11-o'clock. Dark skies make a huge difference --- as my little daughter now helps spread the word about :)

Venus and Jupiter Conjunction - Ed Montes



Here's a shot of the two planets, Jupiter and Venus, the day after their closest approach.

NGC 4026, 4866, 5351 in Ursa Major - Chuck Sterling



Shot on a Canon 60Da on an Astro Tech 8" f/4 Newtonian mounted on a Celestron CGE. All began as thirty subframes shot at ISO1600 for 60 seconds each. NGC 4026 is an edge-on lenticular galaxy in the constellation Ursa Major. It is located at a distance of circa 50 million light years from Earth, which, given its apparent dimensions, means that NGC 4026 is about 80,000 light years across. It was discovered by William Herschel on April 12, 1789. The galaxy hosts a supermassive black hole with estimated mass 108.33 ± 0.109 (166-275 million) M_{\odot} .