

The High Desert Observer

May 2024



This Month's Meeting - May 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.

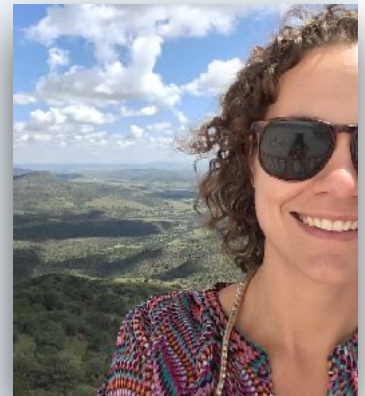
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Tombaugh Lecture Series **Presentation for the Month** Overview of the McDonald Observatory

Katie Kizziar - Asst. Director for Education & Outreach

This talk will provide an overview of McDonald Observatory including the history, facility highlights, research efforts, and public engagement.



Katie Kizziar is the Assistant Director for Education and Outreach for McDonald Observatory, a world-class astronomical research facility located in the Davis Mountains of far west Texas. McDonald Observatory' education and outreach team welcomes 75,000 visitors a year for telescope tours and star gazing, provides distance learning and teacher training programs for K-12 classrooms, and produces StarDate radio, magazine, and other educational resources to help expand humanity's understanding of the Universe. Katie holds degrees in engineering and public affairs and has worked in STEM education for over 20 years. She lives at McDonald Observatory with her husband and two dogs.

From the President

Tim Kostelecky

I'm thinking that the current look of the HDO Newsletter has pretty much run its course, and it may be time for a rework. I started this current format shortly after I took over the HDO editor duties in September of 2020, and I thought then it was a fresh new look with our monthly speaker highlighted on the front page, with articles and meeting minutes in the middle, and of course finishing with members astro-images at the end. I've been pretty happy with it.

However, what is missing from the HDO from the time I took it over are contributions from our members, either in the form of articles of interest, or short reports/photos of recent activities. As I look back on issues from past years...but not too long ago...there were regular contributions such as Bert Stevens' periodic Uranograph pieces as well as informative articles from the likes of Dave Doctor, Fred Pilcher, Nils Allen, and others (I do appreciate regular input from Mike Nuss on ASLC-West activities – thanks Mike!). Originally thought of as a stopgap measure, I started utilizing articles from NASA's Night Sky Network, which is a terrific resource that I thought would be good for filling in the occasional voids, but it's become a monthly



feature for the most part. But that's ok, if it's fulfilling a purpose.

So, what to do. Are we ok with the current format and content, and is it effectively serving the needs of our members? If so, then that's fine and I'll continue on in a similar fashion, but I'm looking for some input on how it can be better. As my duties as President come to an end this year, and I have lots of free-time on my hands :-), I plan on becoming a significant contributor to the HDO, as I consider it a good outlet for sharing my enthusiasm and experiences. Let me know what you think via the groups.io site, or personally at HDO@ascl-nm.org.

As always, Cheers and Clear Skies everyone!

ASLC-West Outreach

Mike Nuss

We had 9 people viewing with us on Friday, May 3rd at Rockhound State Park. Charles, John Gilkison, Bill Nigg and myself were there and at City of Rocks the next night. We had a much larger attendance on Saturday, May 4th at City of Rocks. Bill arranged to have a drumming group that he is a member of from Silver City perform while darkness developed. The wonderful

rhythms probably could be heard throughout the park and was a reason that we had 50 ~ 60 that evening.

If the weather allows, we have a special Cub Scout request from Las Cruces-- camping at City of Rocks this Saturday, the 25th. Also a group of wilderness appreciators & preservationists meeting in Silver City are requesting a viewing at City of Rocks on Tuesday, May 28th

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 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

board@aslc-nm.org

President: Tim Kostelecky president@aslc-nm.org
 Vice President: Ranimo Bush vp@aslc-nm.org
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 Education: Rich Richins education@aslc-nm.org
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 HDO Editor: Tim Kostelecky HDO@aslc-nm.org

Featured Article

Constant Companions: Circumpolar Constellations, Part III

By Kat Troche



This article is distributed by NASA's Night Sky Network (NSN). The NSN program supports astronomy clubs across the USA dedicated to astronomy outreach. Visit nightsky.jpl.nasa.gov to find local clubs, events, and more!

In our final installment of the stars around the North Star, we look ahead to the summer months, where depending on your latitude, the items in these circumpolar constellations are nice and high. Today, we'll discuss Cepheus, Draco, and Ursa Major. These objects can all be spotted with a medium to large-sized telescope under dark skies.

- **Herschel's Garnet Star:** Mu Cephei is a deep-red hypergiant known as The Garnet Star, or Erakis. While the star is not part of the constellation pattern, it sits within the constellation boundary of Cepheus, and is more than 1,000 times the size of our Sun. Like its neighbor Delta Cephei, this star is variable, but is not a reliable Cepheid variable. Rather, its brightness can vary anywhere

between 3.4 to 5.1 in visible magnitude, over the course of 2-12 years.

- **The Cat's Eye Nebula:** Labeled a planetary nebula, there are no planets to be found at the center of this object. Observations taken with NASA's Chandra X-ray Observatory and Hubble Space Telescopes give astronomers a better understanding of this complex, potential binary star, and how its core ejected enough mass to produce the rings of dust. When searching for this object, look towards the 'belly' of Draco with a medium-sized telescope.



Stellarium Web Sky Chart Image: <https://i.imgur.com/Pkgq5Re.png>

- **Bode's Galaxy and the Cigar Galaxy:** Using the arrow on the star map, look diagonal from the star Dubhe in Ursa Major. There you will find Bode's Galaxy (Messier 81) and the Cigar Galaxy (Messier 82). Sometimes referred to as Bode's Nebula, these two



The Cat's Eye Nebula: <https://i.imgur.com/n9TPicu.jpg>



The Cigar Galaxy: <https://i.imgur.com/aOMrpWG.jpg>

galaxies can be spotted with a small to medium-sized telescope. Bode's Galaxy is a classic spiral shape, similar to our own Milky Way galaxy and our neighbor, Andromeda.

The Cigar Galaxy, however, is known as a starburst galaxy type, known to have a high star formation rate and incredible shapes. This image composite from 2006 combines the power of three great observatories: the Hubble Space Telescope imaged hydrogen in orange, and visible light in yellow green; Chandra X-Ray Observatory portrayed X-ray in blue; Spitzer Space Telescope captured infrared light in red.

Up next, we celebrate the solstice with our upcoming mid-month article on the Night Sky Network page through NASA's website!



Bode's Galaxy - Messier 81

NASA Night Sky Notes

June 2024

Monthly Meeting Minutes April 2024

John McCullough - Secretary

Call to Order:

Tim Kostelecky, President, Astronomical Society of Las Cruces (ASLC, the Society), called the April 2024 meeting to order at 7:00 pm on 26 April 2024 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 March 2024 meeting (thanks to John McCullough, Secretary) were published in the April 2024 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. There being none, a motion to accept the March 2024 minutes as submitted was offered by Steve Barkes and seconded by Mark Gorman. There being no objections, the motion was passed by acclamation.

Presentation:

Tonight's Tombaugh Series presentation was ASLC members' experiences and impressions of the 2024 total solar eclipse entitled "The ASLC Catches an Eclipse". Members traveled to several locations along the path of totality to observe, image, and just experience the last total solar eclipse to be visible in the continental US until 2044 (in Montana, North Dakota, and South Dakota). Or they could wait until the next "Great American Total Solar Eclipse" on 12 August 2045. The following members provided images and impressions from various locations:

Stephen Wood and Rich Richins – Branigan Library, Las Cruces, NM (partial eclipse)

Trish Conley and Steve Barkes – Dona Ana Community Center, NM (partial eclipse)

Bob Kimball – "Traveling to Totality", Llano, TX

Mark Gorman and Kristen Gosselink – Ennis, TX

Bert and Janet Stevens – Crown Lake Resort, AR

Bernie Jezercak – Kerrville, TX

Rani Bush – Festival with Bill Nye the Science Guy, Fredericksburg, TX

Nils Allen – Waco, TX

Jeff Johnson – sent images

Allan Oman – light and temperature data curves, Kerrville, TX

Tim and Sandy Kostelecky – Eagle Pass, TX

Ed Montes – Eagle Pass, TX

There was one visitor, Don Rousar, at tonight's meeting. He would like a chance to see the Milky Way again.

Officer/Committee Reports:

Treasurer:

Trish Conley, Treasurer, presented a report on the status of the Society's accounts. Since the last report, the storage unit rent, and final holiday meeting costs had been paid. Some additional member dues were received. The Society's accounts showed a net loss of \$452 since the last meeting but remains positive overall at \$825 for the current fiscal year.

Apparel:

Rani Bush, committee chair, had several items for purchase after the meeting. She is preparing to order new shirts and caps and is wondering about members' required size ranges and colors. She noted per item pricing improves if more than twenty (20) items are ordered. Color choices may also be affected by the colors in the approved logo.

Outreach:

Stephen Wood, outreach coordinator, reported on recent and upcoming events. Events and attendance were:

Event	Date	Members	Visitors
Sonoma Elementary STEAM Night, 1700 to 1900	28 Mar	5	100
LDSP (3 rd Qtr. Moon)	30 Mar	Bad weather	
Solar Eclipse at Branigan Library, 1030 to 1400	08 Apr	3	400
April Moon Gaze	13 Apr	5	100
Highland Elementary	25 Apr	3	50

Upcoming events are:

Event	Date
LDSP (3 rd Qtr. Moon)	04 May
May Moon Gaze	18 May

Contact Stephen if you can support any or all events. He would like to see more members support the smaller events with telescopes.

ASLC-West:

See HDO.

Old Business:

There was no old business for discussion.

New Business/Announcements:

1. SeeStar Acquisition - Tim reported that the Board of Directors (BoD) had approved spending up to \$800 for a SeeStar telescope and accessories for outreach activities at a recent BoD meeting. Since this expenditure was not included in this year's budget, membership approval is required. Rani Bush submitted a motion that the purchase be approved; Bernie Jezercak seconded. Discussion followed including that Ed Montes volunteered to be the primary operator of the setup and will train additional users among the membership. This setup will be for outreach only and will not be included in the Loaner Telescope program. The question was called and approved by the membership present at tonight's meeting.

There was no additional new business offered for discussion.

The April 2024 meeting was adjourned at 8:53 pm.

-Respectfully submitted:
John McCullough
Secretary, ASLC



Member Images

Draco Triplet Galaxies - Bob Kimball



Captured here in Las Cruces with my 4" refractor. 13.5 hrs RGB.

M82 - Cigar Galaxy in Ursa Major Jeff Johnson

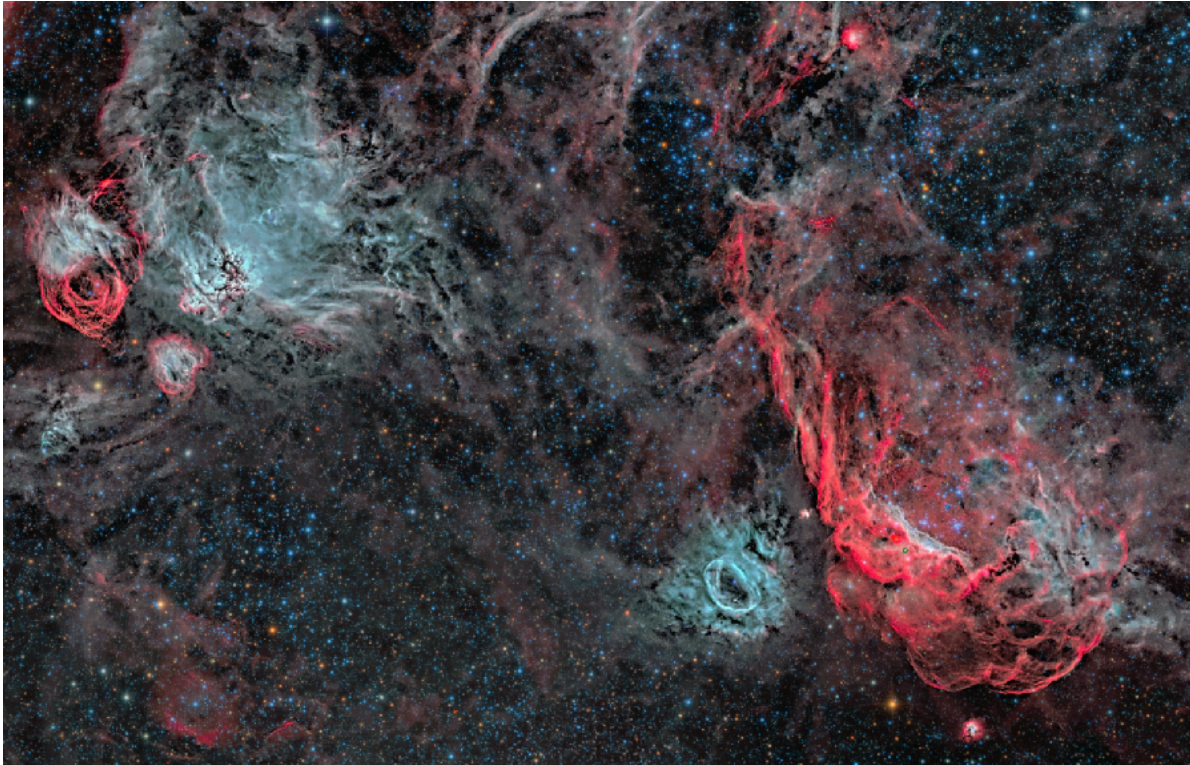


This was the last object from my night out in February (from Las Cruces).

It had been nearly a decade since I imaged this galaxy - and using the RC scope really brought it in close.

The night's seeing was very bad for more than half of the subs (!) but I managed. I also had H-alpha data collected from earlier sessions that I added into this (as well as collecting Ha from this same night).

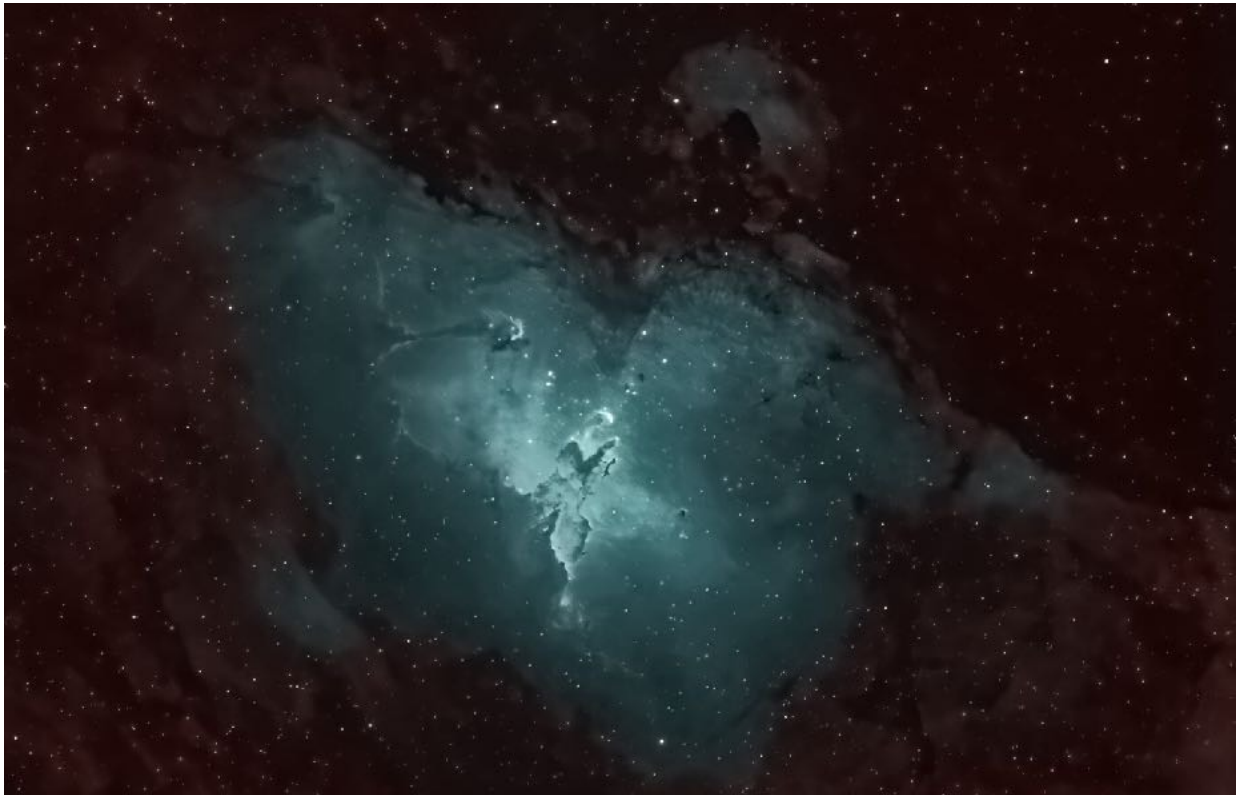
NGC 2014, 2020, 2040 and a Battery of Other Nebulae in the Large Magellanic Cloud Alex Woronow



These nebulae lie in our neighboring galaxy, the Large Magellanic Cloud. The LMC is a dwarf nebula that, through gravitational interactions with our Milky Way Galaxy and another dwarf galaxy, the Small Magellanic Cloud, has burst into rich star formation. This narrowband H α and OIII image captures the clouds' emissions as the radiation from the young, hot stars ionizes the cloud gases.

Data acquired from the Heaven's Mirror Observatory, New South Wales, Australia. Avoiding the provided L subframes and using the RGB to refine the definition of the H α and OIII produced this narrowband image with plenty of detail and excellent color contrast. The stars were from the RGB data and added through alpha-compositing. The teal OIII was gently moderated toward the blue for aesthetics.

M16 Eagle Nebula in Serpens - Rich Richins



I took this pic at Rusty's earlier this month. I didn't want to produce a regular Ha (red) image. Nor did I want to do a Hubble pallet. So I brought in the Ha data in Hb color... well almost. It was a little too green for my liking, so I made it just a wee bit bluer. Anyway, not your regular M16 shot. Hope you like it.