

# The High Desert Observer

## October 2024



**This Month's Meeting  
October 25th**

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 Human Life in Other Worlds***

**Dr. Ilhuiyolitzin Villicaña Pedraza  
Assistant Professor  
Astronomy DACC/ Physics NMSU**

In this talk Dr. Pedraza will give a brief overview of the exploring the space and the possibility of human life beyond Earth, it includes Conditions necessary for human life, potential habitable planets and moons within our solar system and beyond. Also, I will talk about the Technological Challenges and future missions.



Dr. Pedraza is a motivated teacher who focuses on space science and astronomy outreach. She loves visiting the observatories and all the space installations. She received a Ph.D. from Autonomous University of Madrid, Spain, and the Max Planck Institute for Radioastronomy in Germany, she is a specialist in the study of molecules in Space. She also had two months of training at the European Southern Observatory in Chile. She has been teaching The Planets, Introduction to Astronomy classes in the College DACC-NMSU, and Physics in NMSU main campus. She is part-time faculty as well as doing space outreach at international levels. She is a Member of the Executive Committee WG Astronomy for Equity and Inclusion of the International Astronomical Union. She also studied a second major in aerospace technology at NMSU and obtained certifications in Data Science, Artificial intelligence, and Power Bi to be implemented in her grant ELSOL from NSF.

## From the President

### Tim Kostelecky

As if the sighting of Comet Tsuchinshan-ATLAS didn't provide enough extra-curricular excitement in itself this month, the ASLC received an unexpected request from Alan Hale, famous for the co-discovery of Comet Hale-Bopp which put on a magnificent show in 1997. Alan is currently at The Village at Northrise complex here in Las Cruces recovering from a recent surgery, and asked if the ASLC could organize a viewing of Comet Tsuchinshan-ATLAS for him and the staff at Northrise. Thanks to Steve Wood, our Outreach Coordinator, for putting together the very nice event. Alan was very appreciative.

Sadly, we learned of the passing of **Ron Kramer** on Sept 28th. Ron was a long-time active member of the club, and a past president. He was involved in the development of the Leasburg Observatory, and spearheaded the Astronomical League convention that occurred in Las Cruces in 2015. He subsequently held several positions within the Astronomical League. We'll miss Ron, but will always appreciate the value he brought to our group.



Comet watchers at the "Hale" event at The Village at Northrise in Las Cruces



Ron Kramer at the Haas Observatory at Leasburg Dam State Park

## ASLC-West Report

### Mike Nuss

Although we didn't have any participants for our October 4th event at Rockhound State Park, the seven presenters did get some good viewing in.

The next night at City of Rocks, we had 25 visitors, but the darn clouds limited our view. We were assisted both nights by Barry Flansburg from the Astronomy Village. Barry is an accomplished astronomer and imager, and we welcomed his help.

On Thursday, the 10th, Bill Nigg and I helped with a STEM fair event, at the Animas School system. Some kids were motivated with views of the moon and Saturn, but there was a great interest from a lot of mothers! Could be some Christmas or future gifts in the works. To top it off, we were treated to a spectacular aurora display.

**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](mailto: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](http://www.aslc-nm.org) as well as our [Facebook](#) page.

**ASLC Board of Directors**

[board@aslc-nm.org](mailto:board@aslc-nm.org)

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**Committee Chairs**

ALCOR: Patricia Conley [treasurer@aslc-nm.com](mailto:treasurer@aslc-nm.com)  
 Calendar: Stephen Wood [outreach@aslc-nm.org](mailto:outreach@aslc-nm.org)  
 Education: Rich Richins [education@aslc-nm.org](mailto:education@aslc-nm.org)  
 Loaner Program: Tim Kostelecky [loanerScopes@aslc-nm.org](mailto:loanerScopes@aslc-nm.org)  
 Observatories:  
     Leasburg Dam: Steve Barkes [LDSPObservatory@aslc-nm.org](mailto:LDSPObservatory@aslc-nm.org)  
     Tombaugh: Open [ASLCObservatory@aslc-nm.org](mailto:ASLCObservatory@aslc-nm.org)  
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## Featured Article

### Snowballs from Space

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](https://nightsky.jpl.nasa.gov) to find local clubs, events, and more!

If you spotted comet C/2023 A3 (Tsuchinshan-ATLAS) in person, or seen photos online this October, you might have been inspired to learn more about these visitors from the outer Solar System. Get ready for the next comet and find out how comets are connected to some of our favorite annual astronomy events.



Comet McNaught over the Pacific Ocean. Image taken from Paranal Observatory in January 2007. Credits: ESO/Sebastian Deiries

### Comet Composition

A comet is defined as an icy body that is small in size and can develop a 'tail' of gas as it approaches the Sun from the outer Solar System. The key traits of a comet are its nucleus, coma, and tail.

The nucleus of the comet is comprised of ice, gas, dust, and rock. This central structure can be up to 80 miles wide in some instances, as recorded by the Hubble Space Telescope in 2022 – large for a comet but too small to see with a telescope. As the comet reaches the inner Solar System, the ice from the nucleus starts to vaporize, converting into gas. The gas cloud that forms around the comet as it approaches the Sun is called the coma. This helps give the comet its glow. But beware: much like Icarus, sometimes these bodies don't survive their journey around the Sun and can fall apart the closer it gets.

The most prominent feature is the tail of the comet. Under moderately dark skies, the brightest comets show a dust tail, pointed away from the Sun. When photographing comets, you can sometimes resolve the second tail, made of ionized gases that have been electronically charged by solar radiation. These ion tails can appear bluish, in comparison to the white color of the dust tail. The ion tail is also always pointed away from the Sun. In 2007, NASA's STEREO mission captured images of C/2006 P1 McNaught and its dust tail, stretching over 100 million miles. Studies of those images revealed that solar wind

influenced both the ion and dust tail, creating striations – bands – giving both tails a feather appearance in the night sky.

**Coming and Going**

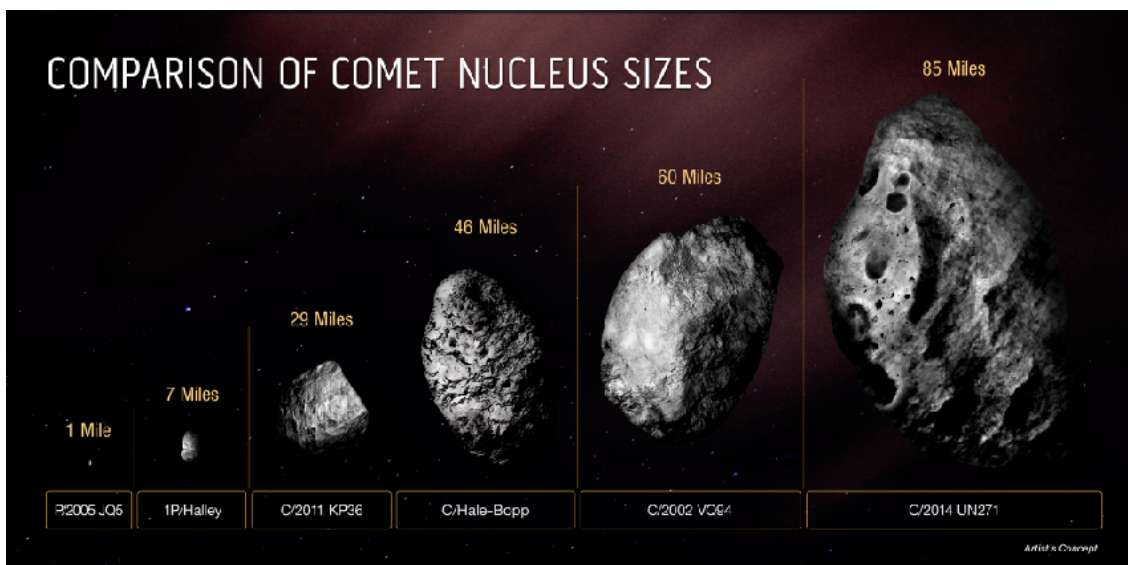
Comets appear from beyond Uranus, in the Kuiper Belt, and may even come from as far as the Oort Cloud. These visitors can be short-period comets like Halley’s Comet, returning every 76 years. This may seem long to us, but long-period comets like Comet Hale-Bopp, observed from 1996-1997 won’t return to the inner Solar System until the year 4385. Other types include non-periodic comets like NEOWISE, which only pass through our Solar System once.



A view of the 2023 Perseid meteor shower from the southernmost part of Sequoia National Forest, near Piute Peak. Debris from comet Swift-Tuttle creates the Perseids. Credit: NASA/Preston Dyches

But our experiences of these comets are not limited to the occasional fluffy snowball. As comets orbit the Sun, they can leave a trail of rocky debris in its orbital path. When Earth finds itself passing through one of these debris fields, we experience meteor showers! The most well-known of these is the Perseid

meteor shower, caused by Comet 109P/Swift-Tuttle. While this meteor shower happens every August in the northern hemisphere, we won’t see Comet Swift-Tuttle again until the year 2126.



## Monthly Meeting Minutes September 2024

**John McCullough - Secretary**

### Call to Order:

Tim Kostelecky, President, Astronomical Society of Las Cruces (ASLC, the Society), called the September 2024 meeting to order at 7:00 pm on 27 September 2024 at the Mesilla Valley Radio Clubhouse. There were twenty-one (21) members, spouses, and guests in attendance, as well as nine (9) attendees via Zoom at the start of the meeting.

Tim welcomed the group to tonight's meeting. He announced that the meeting minutes from August 2024 were published in the September 2024 issue of the Society newsletter, the High Desert Observer (HDO). He asked if there were corrections, clarifications, or modifications required. None being offered, Tracy Stuart moved that the August minutes be accepted as published and Rani Bush seconded the motion. The minutes were accepted by acclamation.

### Presentation:

Tonight's Tombaugh Series presentation was by Mr. Scott A. McLaughlin, Executive Director of New Mexico Spaceport Authority (NMSA), on "Status of Spaceport America". Mr. McLaughlin provided a brief history of the economic development project that is Spaceport America, along with its current status and vision for the future.

Scott McLaughlin is an experienced executive and engineer with a diverse background in both design and business and has worked in both private and government sectors. Mr. McLaughlin was born and raised in New Mexico, and after graduating from New Mexico State University (NMSU) with a B.S. in Electrical Engineering, he moved to Colorado where he later became a principal in establishing a wind radar design and manufacturing business. After a business acquisition, he returned to New Mexico after a more than 25-year absence, to continue working and living in the beautiful southwestern desert. With a life-long love of aerospace, in 2019 Scott started working for the NMSA, becoming Executive Director in February 2021.

Tim welcomed Jenny Song, a student at NMSU who is very interested in learning about astronomy who was on Zoom. Guests Bruce Wiseman and Tina Hilton, 'newbies' to astronomy, are joining the Society tonight. Harvey Tautala, who has been in Las Cruces for three years after moving from Alaska, was visiting tonight's meeting. He has a Celestron 8SE and would like to get into astro-photography. New Member Yvette Hinojosa was attending her first meeting and is eager to learn more about astronomy.

### Officer/Committee Reports:

#### Treasurer:

Trish Conley, Treasurer, was not present at tonight's meeting. Tim Kostelecky presented a report on the status of the Society's finances in her absence. The ASLC is currently \$242.39 in the red for the current year.

#### Outreach:

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

Event	Date	Members	Visitors
LDSP (3rd Qtr. Moon)	31 Aug	8	40
Spaceport America Open House	08 Sep	3	400
September Moon Gaze	14 Sep	6	200
LC Catholic School Star Party	26 Sep	3	200

Event	Date
LDSP (3rd Qtr. Moon)	28 Sep
October Moon Gaze	12 Oct

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:

Mike Nuss, coordinator, reported the Deming group will resume star party activities next weekend. There will also be an event at Animas High School on 10 October. Two more events are planned in November.

#### Apparel:

Rani Bush, committee chair, presented new ASLC apparel – polo shirts and caps, that were delivered today. She plans to place another order for shirts in January 2025. Caps are available tonight for \$16.

#### Nominating Committee:

The Nominating Committee (Patricia Conley (Chair), Bernie Jezercak (reporting), and Mark Gorman) provided

the following slate of officer and director candidates for 2025:

President:	Rani Bush	Director-at-Large #1: Tracy Stuart
Vice-President:	Nils Allen	Director-at-Large #2: Bernie Jezercak
Secretary:	John McCullough	
Treasurer:	Patricia (Trish) Conley	

Tim Kostelecky will transition to the position of Immediate Past President and continue on the 2025 Board of Directors. Ballots will be emailed to members next month. The October meeting is also the 2024 Annual Meeting.

Old Business:

There was no old business for discussion.

New Business/Announcements:

Renaissance Arts Faire 2025 – This year's Faire is the first weekend in November (02 and 03, Saturday and Sunday). Set-up will be Friday, 01 November. This is an important event for the Society so please consider volunteering. More information will be coming via email.

2024 Holiday Party – the party is planned for 07 December at Tim's home with a potluck format. More details to follow.

November 2024 meeting – The November monthly meeting will be on the 15th, the third Friday.

Former member Ron Kramer – Former member and Society President Ron Kramer is terminally ill. ASLC members have completed an inventory of his equipment and are assisting with disposition.

Former member Chuck Sterling – Former member and Society President Chuck Sterling, who passed away in August, donated all his equipment to the Society.

There was no additional new business offered for discussion.

The September 2024 meeting was adjourned at 8:17 pm.

-Respectfully submitted:  
John McCullough  
Secretary, ASLC



## Member Images

### Aurora Borealis with Star Trails Ed Montes



Star trails and aurora - about an hour's worth of images from the aurora episode combined to make the trails - then tweaked - not much - to heighten the aurora. Taken with DSLR with 18mm lens.

**LDN 1536 in Taurus**  
**Bob Kimball**



I took this image at the Okie-Tex Star Party with my tiny William Optics RedCat (51mm). It is LDN 1536 which is a dark nebula located near the Pleiades. The image is a combination of 105 X 2 minute subs

## Comet Tsuchinshan-ATLAS Kent DeGroff

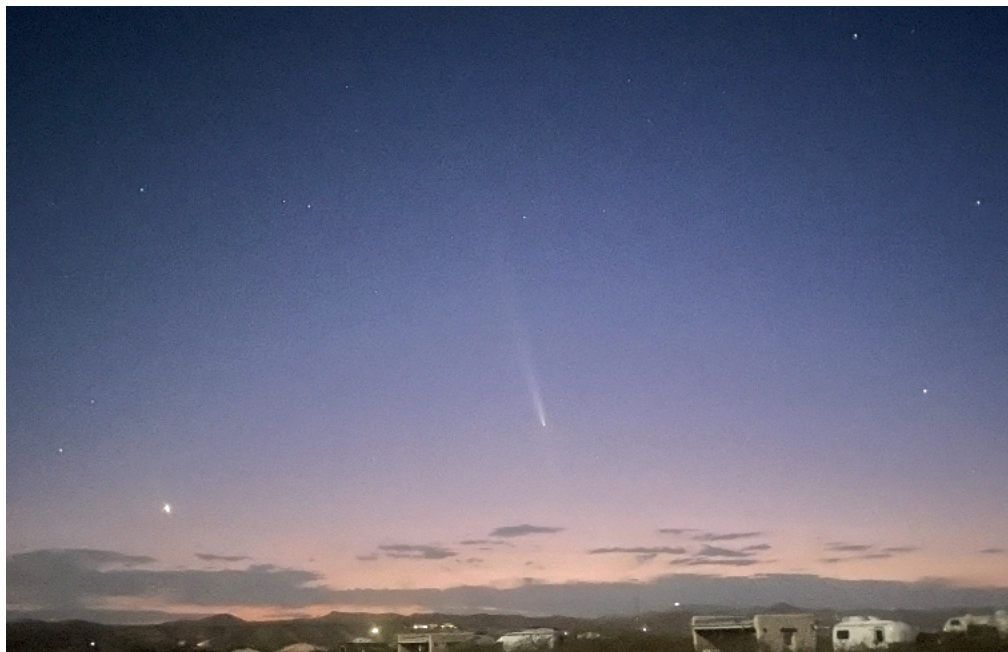


Quite a nice naked-eye comet, great in binocs, with a tail about 15 degrees long and an "anti-tail" as well. Here's an image I took last night from Arenas Valley using a Canon 600D, 20 seconds at f/4, 55mm focal length, ISO 800:

## Comet Tsuchinshan-ATLAS Rich Richins



Comet with NGC5904 showing through tail



Comet shot taken at Leasburg Dam State Park

**Cocoon Nebula - IC5146 in Cygnus**  
**Tim Kostelecky**



I caught this at the Okie-Tex Star Party. I think this should be named the Reindeer Nebula...that's what I see in the middle. TV85 at f/5.6 with ASI533MC OSC. 45x2m subs. Processed with Siril.