

The High Desert Observer

March 2022

This Month's Meeting - March 25, 2022

Meeting will be virtual via Zoom®
Friday at 7 p.m.

Speaker for the Month - Dave Finley

The Very Large Array: Past and Future



Dave Finley has been **Public Information Officer for the National Radio Astronomy Observatory** for nearly three decades, bringing to the public the discoveries coming from the world's premier radio observatory. A former science/medicine editor for The Miami Herald, he

is a widely-published author and lecturer on topics including astronomy, geology, science writing, amateur radio, and history. He taught astronomy and geology at Florida International University, and has lectured at universities, observatories, star parties, clubs, and aboard cruise ships. He is a former squadron commander in the Civil Air Patrol, and currently serves as Historian for that organization's six-state Southwest Region. He is a private pilot and a veteran of the U.S. Marine Corps.

This profusely illustrated presentation examines the history and scientific achievements of the



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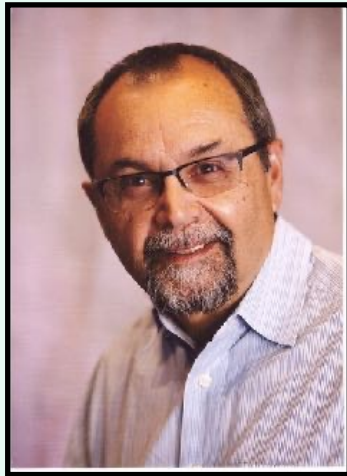
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VLA over four decades of operation at the frontiers of human knowledge. Beginning with an overview of pre-VLA radio astronomy, the presentation recounts the VLA's conception, design, and construction, and the breakthrough discoveries of the "classic" VLA. It continues with the dramatic technical expansion of the VLA's capabilities culminating in a rededication in 2012 and discoveries made possible by that expansion. The presentation concludes with a look at plans for the next-generation VLA, a new telescope that will be an essential part of taking science into a new era of 21st-Century discovery.

From the Desk of Ed Montes ASLC President

Spring has sprung

We've hit Springtime again, jumped to DST, and have entered Galaxy Season. I await with bated breath the astrophotos that will be emerging: the Leo Triplet M65, M66, NGC3628; the other Leo Triplet M105, NGC3384, NGC3389, the Sombrero M104.



Yep, there are going to be some fabulous targets and some beautiful images coming out. The gang going to Rusty's at the end of April will come back with a treasure trove of images and drawings.

A Mini-Challenge

Here's a challenge, not specifically a Springtime list, but some of them are. Remember the TV show "The Outer Limits"? It was a classic SciFi show from the 60s and its closing credits rolled over a collection of astrophotos which, for the time, were actually pretty good. So, the challenge is to take an updated series of images of the objects that were in those closing credits: M67 Open cluster in Cancer, NGC 891 in Andromeda, M104 the Sombrero, M101 in Ursa Major, NGC 5128 (Centaurus A), NGC 1300 in Eridanus, M81 in Ursa Major, and finally M31 the Andromeda Galaxy. It's only eight objects, the most challenging of which is probably Cent A; the Rusty's gang I would guess has the best shot at that one. What do you say – who's up for trying this mini-challenge?

Here's a link to the YouTube video of the closing credits: <https://www.youtube.com/watch?v=v6FmpX3oePo>

Messier Marathon 5K

The event that we proposed last month, a Messier Marathon, has moved forward and will occur on April 2nd – with one primary modification: it's no longer a marathon. No one, including yours truly, was excited about the potential of staying out until early in the morning to catch the final fuzzy stragglers, so by acclamation we decided to have an abbreviated showing. It will, however, include a potluck, so if you plan to come, please bring something you can share. Please post to groups.io your intention to attend and what you're bringing. Or just show up. Leasburg Dam State Park, around 6:30 pm, put an ASLC sign in your car window so you don't have to pay the \$5.00 State Park charge.

Speaker this Month

Our speaker this month, March 2022, is Dave Finley. He is the Information Officer at the National Radio Astronomy Observatory and will be talking about the history, mission and future of the VLA.

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 Leasburg Dam State Park Observatory 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.

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.

Featured Article:

Advanced Catspotting: Lynx and Leo Minor



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

Many constellations are bright, big, and fairly easy to spot. Others can be surprisingly small and faint, but with practice even these challenging star patterns become easier to discern. A couple of fun fainter constellations can be found in between the brighter stars of Ursa Major, Leo, and Gemini: Lynx and Leo Minor, two wild cats hunting among the menagerie of animal-themed northern star patterns!

Lynx, named for the species of wild cat, is seen as a faint zigzag pattern found between Ursa Major, Gemini, and Auriga. Grab a telescope and try to spot the remote starry orb of globular cluster NGC 2419. As it is so distant compared to other globular clusters - 300,000 light years from both our solar system and the center of the Milky Way - it was thought that this cluster may be the remnants of a dwarf galaxy consumed by our own. Additional studies have muddied the waters concerning its possible origins, revealing two distinct populations

of stars residing in NGC 2419, which is unusual for normally-homogenous globular clusters and marks it as a fascinating object for further research.

Leo Minor is a faint and diminutive set of stars. Its “triangle” is most noticeable, tucked in between Leo and Ursa Major. Leo Minor is the cub of Leo the Lion, similar to Ursa Minor being the cub to the Great Bear of Ursa Major. While home to some interesting galaxies that can be observed from large amateur scopes under dark skies, perhaps the most intriguing object found within Leo Minor’s borders is Hanny’s Voorwerp (see figure below).

This unusual deep-space object is thought to be a possible “light echo” of a quasar in neighboring galaxy IC 2497 that has recently “switched off.” It was found by Hanny van Arkel, a Dutch schoolteacher, via her participation in the Galaxy Zoo citizen science project. Since then a few more intriguing objects similar to Hanny’s discovery have been found, called “Voorwerpes.”

Lynx and Leo Minor are relatively “new” constellations, as they were both created by the legendarily sharp-eyed European astronomer Johannes Hevelius in the late 1600s. A few other constellations originated by Hevelius are still in official use: Canes Venatici, Lacerta, Scutum, Sextans, and Vulpecula. What if your eyes aren’t quite as sharp as Johannes Hevelius – or if your weather and light pollution make searching for fainter stars more difficult than enjoyable? See if you can spot the next Voorwerp by participating in one of the many citizen science programs offered by NASA at science.nasa.gov/citizenscience/! And of course, you can find the latest updates and observations of even more dim and distant objects at nasa.gov.

Sky Map of Lynx and Leo Minor

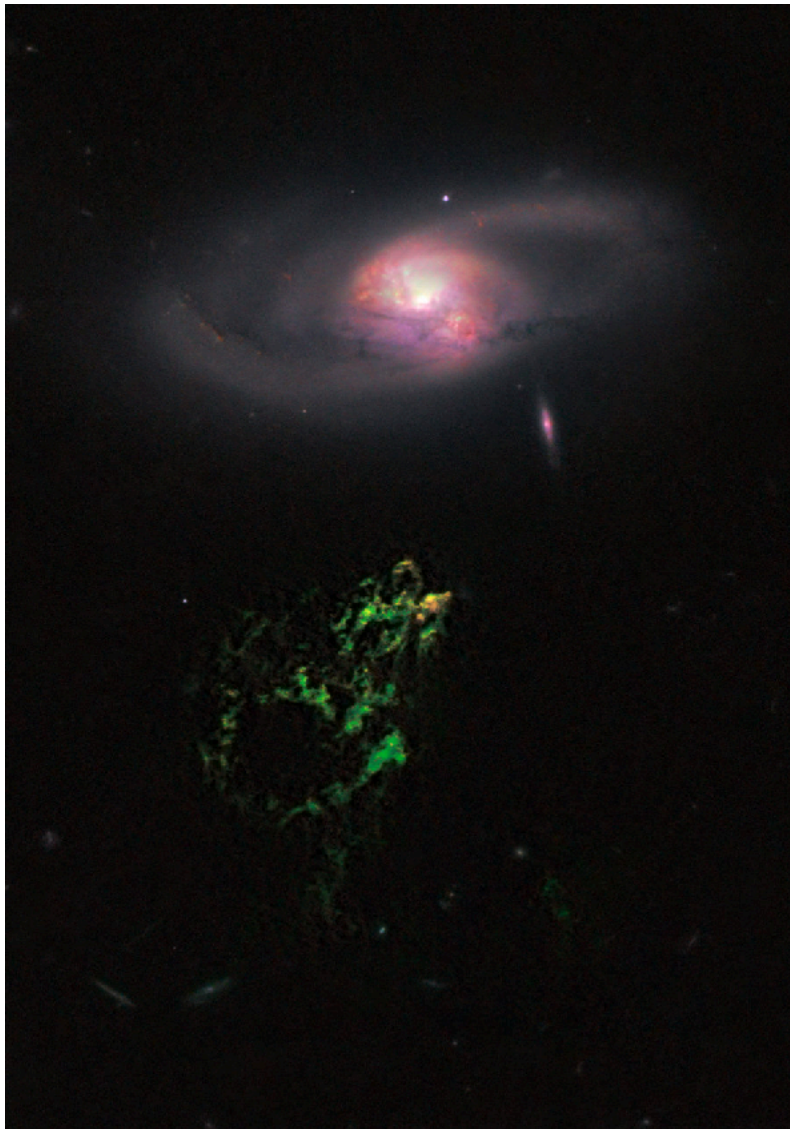


Notice the prevalence of animal-themed constellations in this area, making it a sort of celestial menagerie. If you are having difficulty locating the fainter stars of Leo Minor and Lynx, don't fret; they are indeed a challenge. Hevelius even named the constellation as reference to the quality of eyesight one needs in order to discern these faint stars, since supposedly one would need eyes as sharp as a Lynx to see it! Darker skies will indeed make your search easier; light pollution, even a relatively bright Moon, will overwhelm the faint stars for both of these celestial wildcats. While you will be able to see NGC 2419 with a backyard telescope, Hanny's Voorwerp is far too faint, but its location is still marked. A few fainter constellation labels and diagrams in this region have been omitted for clarity.

Image created with assistance from Stellarium

Hanny's Voorwerp

Photo of a cloudy green object, nebulous and faint, slightly below an elliptical galaxy.



Hanny's Voorwerp and the neighboring galaxy IC 2497, as imaged by Hubble. Credits: NASA, ESA, W. Keel (University of Alabama), and the Galaxy Zoo Team Source: <https://hubblesite.org/contents/news-releases/2011/news-2011-01.html>

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Minutes of February 2022 Meeting

John McCullough - Secretary

Ed Montes, President, Astronomical Society of Las Cruces (ASLC, the Society), called the February 2022 meeting to order at 7:04 pm on 25 February 2022. He welcomed attendees to tonight's meeting via ZOOM. Twenty-three (23) attendees were signed in for the start of the meeting.

Ed welcomed the group to tonight's meeting and announced that the minutes from the January 2022 meeting (thanks to John McCullough, Secretary) were published in the February issue of the Society newsletter, the High Desert Observer (HDO) (thanks to Tim Kostecky, HDO Editor). Ed asked if there were any required additions, deletions, or corrections to the minutes as submitted. A motion to accept the January 2022 minutes as submitted was offered by Tracy Stuart, seconded by Steve Barks. There being no objections, the motion was passed by acclamation.

Ed introduced tonight's speaker, Mr. Kelly Beatty.

Presentation:

Tonight's Tombaugh Series speaker was Mr. Kelly Beatty of Sky & Telescope magazine. His topic was "Darkness in Distress".

Light pollution, simply put, is any unnecessary or excessive outdoor illumination. Sadly, it's become a pervasive and ugly consequence of our modern 24/7 society. Light pollution robs us of the night sky's beauty, negatively affects the ecosystem, and creates an inyourface waste of energy. But a new mindset and new technology are poised to slow — and perhaps reverse — this bane of modern life. Kelly described some of the biggest causes of light pollution — and how we can safely light up our homes, businesses, and community without washing out the stars, wasting energy, disturbing our neighbors, or creating an unhealthy environment for humans and wildlife.

Kelly Beatty has been explaining the science and wonder of astronomy to the public since 1974. An awardwinning writer and communicator, he is a Senior Editor for Cambridge, MA-based Sky & Telescope magazine. Beatty enjoys sharing his passion for astronomy with a wide spectrum of audiences, from children to professional astronomers, and his interviews and guest commentaries can occasionally be heard on National Public Radio and The Weather Channel. He served for a decade on the Board of Directors for the International Dark-Sky Association.

Officer/Committee Reports:Treasurer:

Trish Conley, Treasurer, reported that thanks to a generous donation of \$465, club insurance, internet domain name registration fee, and safety deposit box rental have been paid. Dues payments for 2022 continue to be received. Payments and donations have exceeded \$1064 since the beginning of the fiscal year on 01 October 2021. Although Trish has already thanked donors individually when donations were received, Ed will thank all donors in a future issue of the HDO.

The Walter Haas Observatory at Leasburg Dam State Park (LDSP):

Steve Barkes, committee chairman, reported a successful event last weekend. Another open house will be held on 26 February. Steve and Tim Kostelecky will collimate the 16" Meade as soon as possible. Steve says he needs to purchase a USB hub and additional cables.

The official naming process continues but still requires signoff by the Governor.

Outreach:

Stephen Wood, program coordinator, reported cold conditions for the most recent Moon Gaze, but several hardcore attendees arrived late. There was almost a record turn-out of more than ten (10) members to support the Moon Gaze. The star party at Tombaugh Elementary on 24 February had 200300 attendees. The next Moon Gaze will be 12 March.

ASLCWest (Demingarea) Activity Report:

Mike Nuss reported the Rockhound State Park event on 04 February had bad weather. The City of Rocks State Park event on 05 February had good attendance but temperature was 22°F at the end.

Loaner Telescope:

Tim Kostelecky, program coordinator, reported that descriptions of the program telescopes were listed in the HDO. He plans for this to be a regular HDO feature and be included on the web site. Several

telescopes are currently checked out to members. Tim also queried if the gate at LDSP could be left open later.

Old Business:

No old business was offered for consideration.

New Business:

Messier Marathon – Steve Barkes is willing to support a Messier Marathon in either March or April at LDSP. There may also be a mini-Marathon later in the year. He will look at details and distribute information via email. Ed Montes will start a discussion of a Marathon on the groups.io. New member – Matt Beinstein recently moved to Las Cruces from Matawine, NJ. He asked how Society events are announced/advertised. There are some issues getting all the possible bases covered. Matt would like to help with outreach and publicity.

In-person meeting – Ed Montes and the Board of Directors continue to look at alternate locations to resume in-person meetings. For the time being, meetings will remain on Zoom.

Dark sky measurements – Measurements for the International Dark Sky Association (IDA) viewing location map will be made at LDSP and a future Moon Gaze on the Downtown Plaza.

No additional new business was offered for consideration.

The February 2022 meeting was adjourned at 8:47 pm.

-Respectfully submitted:
John McCullough
Secretary, ASLC

Loaner Scope Program

We have several scopes available covering all popular types, and these items are available to members at no charge. The typical loan period is two months, with month-to-month extensions thereafter if available. Equipment can be checked out through Tim Kostecky, our Loaner Program Coordinator (tim.kostel@icloud.com). The ASLC loaner telescopes range in size from a 61mm refractor to a 10" Dob. Along with the telescopes and eyepieces, the loaner program has other accessories available.



Vintage 1970's Celestron Classic 8" SCT.

It's a bit of a beast but manageable and transportable. No computer control, but has AC tracking drive and manual fine-tune RA control. Get it reasonably polar aligned and it's a pleasure to use and gives great views. **Available Now**



Celestron NexStar 8se - 8 inch Schmidt-Cassegrain

Very popular Celestron SCT with computer goto system. Runs only on AA batteries or DC port and has no manual pointing capability - all electronic. It's a nice scope that does a decent job pulling in deep sky objects. **Available May 1st**



Celestron C102 4" Refractor

Mature but reliable Celestron classic achro-refractor. Stable Meade Autostar goto mount gives this guy good support and capabilities. May not be pretty and shiny, but won't disappoint. **Available Now**



Orion StarMax 90 - 90mm Maksutov-Cassegrain

Simple table-top Mak, and with its f/13.9 focal ratio, it provides the magnification power to take good looks at the moon, planets and smaller bright deep sky objects. The optics are quite good. Super for grab-and-go portability. **Available May 1st**



Meade ETX-90 go-to - 90mm Maksutov-Cassegrain

Nice scope but at f/13.9 has limited field of view, but with its computerized mount, it finds a wide array of celestial objects and tracks well. Its high f-ratio does well with the moon, planets and small brighter DSOs. The mount is a little noisy, even when tracking...but don't let that dissuade you from trying it out. **Available Now**



William Optics ZenithStar 61mm Apo-Refractor

This is a small scope but a gem. Wide field of view with superb optics. iOptron computerized mount is a nice fit for finding celestial objects and tracking. Good visually for moon, planets and bright star clusters. Field Flattener available for astro-imaging, but iOptron alt/az mount has limited imaging capability. **Available now**, but the mount has an electronics issues we're addressing. Let me know if you're interested.



Orion SkyQuest XT10 - 10" Dobsonian Reflector

Classic 10" Dob. Manual pointing and guiding, but its 4.7 focal ratio provides a wide field of view that helps you find and track objects. Includes a finder scope (not shown), 2" focuser, front cover, and eyepiece rack. The scope has a few miles on it with some minor dings and dents, but those won't interfere with your viewing. It's a really nice grab & go scope for deep sky objects. **Available Now**

Member Image

NGC 2419 in Linx - Kent DeGross



Congratulations to Kent for this image being published on the Spanish website, Universo Magico. <https://www.universomagico.net/2022/03/ngc-2419-por-kent-degrosso.html>

It was taken in 2021 using a QHY 168C one-shot color camera on an 18" Newtonian reflector.