

The High Desert Observer

August 2021

This Month's Meeting - August 27, 2021

Meeting will be virtual via Zoom®
Friday, August 27th at 7 p.m.

Speaker for the Month - Alex Woronow **The Stellina Telescope—The Future of Amateur Astronomy has Arrived**

This presentation will cover the features and show some early images Alex has captured with a new generation of amateur telescopes: Enter the Stellina! The automation of the Stellina telescope surpasses any previous or other current telescopes in a plethora of dimensions, from an entree into DSO astronomy to a capable image platform.



Alex Woronow received an A.B. degree in Astronomy from Berkeley, an M.S. in geology from U. Houston, and a Ph.D.

from Harvard. He's been with the faculty of U. Arizona's Planetary Sciences Dept., and the geosciences faculty at U. Houston. Alex's astro-image processing interest focuses on extracting maximum information (detail) from the images utilizing artificial intelligence and statistical tools, and more traditional approaches.



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Coming Events

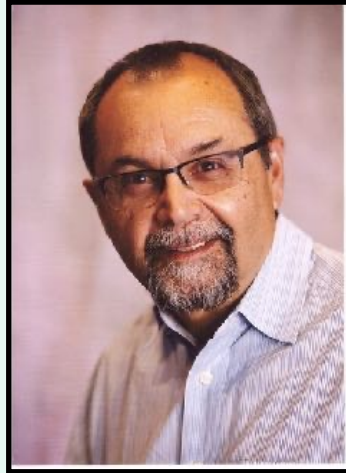
Monthly, on an evening close to the first-quarter moon, ASLC hosts a public "MoonGaze" observing session in Las Cruces. We also hold periodic special evening sessions at Tombaugh Observatory on the NMSU campus.

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 as well as our [Facebook](#) page.

From the Desk of Ed Montes ASLC President

This month's message is going to be more along the lines of announcements, thanks and things to consider.



First, an announcement: we did announce this at the last meeting, but it's worth repeating for a potentially larger audience. The board has decided to increase club dues, an action not taken in more than 15 years. The single membership is going up from \$30/year to \$36/year; the family rate is rising from \$36 to \$42/year. The new rates are reflected now correctly and consistently on the club website.

Now for some thanks. We've had two very nice donations made recently. These will serve to enhance our loaner program.

The first was from Susan Keller. She contacted the club because she needed help in setting up and aligning her telescope. I reached out to her and offered to help, but we didn't have any clear nights for a stretch so I couldn't do it immediately. I did let her know that we hadn't forgotten her and she appreciated that. After about another week or so she contacted me again. She said she came to a realization: she didn't want to spend too much time outside where she might attract mosquitoes. She's sensitive to them and avoids and does what's necessary to restrict contact however she can – even here in the desert, not too close to the river. In light of that, she decided that rather than get help setting up her scope, she'd prefer to donate it, and asked whether we'd accept it. So,

we gratefully accepted an essentially new Celestron NexStar 8SE with mount and accessories. We provided her with a letter indicating her donation to a non-profit organization and invited her to any mosquito-free star parties that we hold.

The next donation was from Joyce Yearly. She is the widow of Bob Yearly who died in March of this year. Bob had been a member of the ASLC in the early 2000s and Joyce remembered that and contacted us about needing help preparing some of his equipment for sale and also donating some of it to us. Tim and I went to see her and found out that after taking an astronomy class in the early 90s, Bob had become addicted to and had eventually built a rather substantial observatory and had been doing some rather sophisticated video astronomy. Among the things she donated are a 10-inch Meade LX200 EMC (it needs some work), the smaller sibling of the scope in Leasburg and two Williams Optics refractors – a 66mm and a 61mm. The refractors will definitely be good additions to the loaner program. We need to determine what to do with the Meade, it's big and heavy, so having it in the loaner program might be a stretch, but it's possible. Joyce kept a newer Meade 10-inch LX 200 ACF which will be part of an estate sale on Aug 27&28 (I think) - and then part of an auction if it doesn't sell at the estate sale. So, if you're interested in a very nice and pretty complete set-up, check it out – 912 Lantana, Las Cruces.

So, big thanks to these two ladies for their donations to the club!

As for the thing to consider: the Las Cruces Renaissance ArtsFaire will be held at Young Park on November 6 & 7. The club will have a booth there where we will be doing outreach: observing the sun (properly filtered, white light and with the Coronado scope) and whatever else might be visible – daytime views of the planets are always fun. We need volunteers to support the booth

because we do have a good crowd show up. Four-hour stints are all we ask, though an all day stint is nice too. By being a volunteer, you get free entry to the Faire. Having enough volunteers gives everyone a chance to both staff the booth and then get time to wander the Faire, which is fun. We will need some time on Friday afternoon to do setup and on Sunday after the Faire closes to take down the booth and take it back to storage. Please consider participating.

Our next Zoom meeting is on Aug 27th. I will not be available to run the meeting; that task will be handled ably by Tim Kostelecky. Our Tombaugh Speaker this month will be our own Dr. Alex Woronow who will be discuss the Stellina Telescope – a product that might ignite a mini-revolution in amateur astronomy.

That's it for now. Clear skies!



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.

ASLC Board of Directors

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President:	Ed Montes	president@aslc-nm.org
Vice President:	Tim Kostelecky	vp@aslc-nm.org
Treasurer:	Patricia Conley	treasurer@aslc-nm.org
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Featured Article:

Catch Andromeda Rising



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

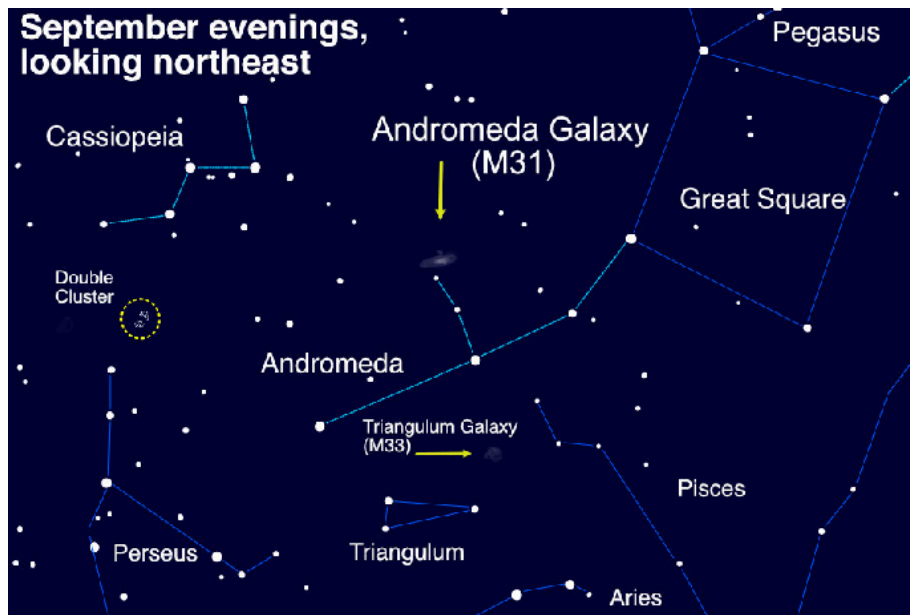
If you're thinking of a galaxy, the image in your head is probably the Andromeda Galaxy! Studies of this massive neighboring galaxy, also called M31, have played an incredibly important role in shaping modern astronomy. As a bonus for stargazers, the Andromeda Galaxy is also a beautiful sight.

Have you heard that all the stars you see at night are part of our Milky Way galaxy? While that is mostly true, one star-like object located near the border between the constellations of Andromeda and Cassiopeia appears fuzzy to unaided eyes. That's because it's not a star, but the Andromeda Galaxy, its trillion stars appearing to our eyes as a 3.4 magnitude patch of haze. Why so dim? Distance! It's outside our galaxy, around 2.5 million light years distant - so far away that the light you see left M31's stars when our earliest ancestors figured out stone tools. Binoculars show more detail: M31's bright core stands out, along with a bit of its wispy, saucer-shaped disc. Telescopes bring out greater detail but often can't view the entire galaxy at once. Depending on the quality of your skies and your magnification, you may be able to make out individual globular clusters, structure, and at least two of its orbiting dwarf galaxies: M110 and M32. Light pollution and thin clouds,

smoke, or haze will severely hamper observing fainter detail, as they will for any "faint fuzzy." Surprisingly, persistent stargazers can still spot M31's core from areas of moderate light pollution as long as skies are otherwise clear.

Modern astronomy was greatly shaped by studies of the Andromeda Galaxy. A hundred years ago, the idea that there were other galaxies beside our own was not widely accepted, and so M31 was called the "Andromeda Nebula." Increasingly detailed observations of M31 caused astronomers to question its place in our universe – was M31 its own "island universe," and not part of our Milky Way? Harlow Shapley and Heber Curtis engaged in the "Great Debate" of 1920 over its nature. Curtis argued forcefully from his observations of dimmer than expected nova, dust lanes, and other oddities that the "nebula" was in fact an entirely different galaxy from our own. A few years later, Edwin Hubble, building on Henrietta Leavitt's work on Cepheid variable stars as a "standard candle" for distance measurement, concluded that M31 was

Sky Map for the Andromeda Galaxy



Spot the Andromeda Galaxy! M31's more common name comes from its parent constellation, which becomes prominent as autumn arrives in the Northern Hemisphere. Surprising amounts of detail can be observed with unaided eyes when seen from dark sky sites. Hints of it can even be made out from light polluted areas. Image created with assistance from Stellarium

indeed another galaxy after he observed Cepheids in photos of Andromeda, and estimated M31's distance as far outside our galaxy's boundaries. And so, the Andromeda Nebula became known as the Andromeda Galaxy.

These discoveries inspire astronomers to this day, who continue to observe M31 and many other galaxies for hints about the nature of our universe.

One of the Hubble Space Telescope's longest-running observing campaigns was a study of M31: the Panchromatic Hubble Andromeda Treasury (PHAT): bit.ly/m31phat . Dig into NASA's latest discoveries about the Andromeda Galaxy, and the cosmos at large, at nasa.gov.



While M31's disc appears larger than you might expect (about 3 Moon widths wide), its "galactic halo" of scattered stars and gas is much, much larger – as you can see here. In fact, it is suspected that its halo is so huge that it may already mingle with our Milky Way's own halo, which makes sense since our galaxies are expected to merge sometime in the next few billion years! The dots are quasars, objects located behind the halo, which are the very energetic cores of distant galaxies powered by black holes at their center. The Hubble team studied the composition of M31's halo by measuring how the quasars' light was absorbed by the halo's material.

Minutes of July 2021 Meeting

John McCullough - Secretary

Edward Montes, President, Astronomical Society of Las Cruces (ASLC, the Society), called the July 2021 meeting to order at 7:05 pm on 23 July 2021. He welcomed attendees to tonight's meeting via ZOOM. Eighteen (18) attendees were signed in for the start of the meeting.

Ed welcomed the group and noted that minutes from the June 2021 meeting (thanks to John McCullough, Secretary) were published in the Society newsletter, the High Desert Observer (HDO), (thanks to Tim Kostelecky, HDO editor). Ed asked if there were any required additions, deletions, or corrections to the minutes as submitted. None being offered, a motion to accept the June 2021 minutes as published was offered by Tracy Stuart and seconded by Jerry Gaber. There being no objections, the motion was passed. Ed introduced tonight's speaker, Al Nagler, founder of Tele Vue Optics.

Presentation:

Al Nagler's presentation was "I Thank My Lucky Stars!". An amateur astronomer since 1948, Al graduated from the Bronx High School of Science with the Shop Award for his 8-inch reflector build and then earned a BS in Physics at the City College of New York. He learned optical design at Farrand Optical Co., where he worked from 1957 to 1973. It was there that he designed simulator optics for the Gemini program and the Lunar Module for the Apollo program. In this timeframe he also won awards at the Stellafane astronomy convention for telescopes he designed and built. Asteroid 10715 Nagler is named for him. Many amateur astronomers know Al Nagler as a giant in the field of telescopes. He is the developer of the revolutionary Nagler eyepieces, which offer amateur astronomers a much wider and sharper field of view of celestial scenes. As founder of Tele Vue Optics, he crafted many high-quality optical products that are well-known to observers.

Officer/Committee Reports:

2021-2022 Budget Committee:

The committee consisted of Ed Montes, President; Trish Conley, Treasurer; and Steve Barks, Member-at-Large (Tim Kostelecky, Vice-President, participated as "consultant"). Ed presented the proposed 2021-2022 budget, noting it is based on the previous two years' (2019-2020, 2020-2021) budgets. He noted that a higher income level is anticipated from 1) an increase in member dues (individual annual dues will increase from \$30 to \$36 and family from \$36 to \$42) and 2) increased Society apparel sales. In response to questions from the membership, Ed noted that equipment upgrades to the Observatory at LDSP is not a new line item in this budget because funds (\$4500) have been allocated previously for this purpose. Steve Barks plans to place an order for new computer equipment in the immediate future amounting to approximately \$2000.

The Observatory at Leasburg Dam State Park (LDSP):

Rich Richins has proposed honoring Society founding member Walter Haas by naming the Observatory at Leasburg Dam State Park (LDSP) after him. Several members noted since the Observatory is New Mexico state property, agreement by the State Parks department may be necessary. Ed Montes asked for a sense of the members in attendance. Chuck Sterling and Jerry Gaber mentioned that there have been issues in the past when the ASLC has taken independent action regarding the Observatory. Steve Barks noted there may be alternate approaches, such as naming the 16" Meade telescope (on long-term loan from New Mexico State University's (NMSU) Astronomy Department) after founders. The consensus was for Ed to approach the Park superintendent with the concept.

Meetings/Presentations:

Ed Montes will not be present for the August meeting. Tim Kostelecky, Vice-President, will preside in his stead. Alex Woronow will be the featured speaker.

An astronomer from the Lowell Observatory in Flagstaff, AZ, will speak at the September meeting.

Tim Kostelecky will be the presenter at the Annual Meeting in October. A speaker is needed for the November meeting.

The December meeting will be a holiday gathering of Society members and spouses, COVID permitting. More information is pending.

Society officers continue to work with staff at Good Samaritan Village (GSV) to resume in-person meetings. Other community groups have resumed in-person meetings at GSV but have continued to abide by social distancing and mask requirements and/or vaccination status verification.

Renaissance Arts Faire 2021:

Trish Conley will be coordinating the Society's participation in this year's Doña Ana Arts Council's (DAAC) 50th Renaissance Arts Faire, 0607 November, Young Park. She would like volunteers for set-up on 05 November, tear-down on 07 November, and to work 3-4 hour sessions in the booth on Saturday and Sunday. In addition to day-time solar and planetary viewing, astrophotography work of ASLC members is a main attraction. Jerry Gaber noted that some income comes from donations for copies of the astro-images.

Outreach:

Stephen Wood, program coordinator, reported that two (2) Moon Gazes and one (1) LDSP event have been attempted to date. Unfortunately, there have been weather issues as well as COVID protocols at LDSP to deal with. Another LDSP event is scheduled for 31 July. A Moon Gaze will be held at the Downtown Plaza on 14 August.

Stephen is also working on new signage for outreach events. He continues to consider other potential Moon Gaze sites including the Downtown Plaza, Mesilla Valley Mall, and Cinema 12. Location and time changes will be announced to members prior to the event(s) via email. The website and FaceBook calendars will also be updated.

Treasurer:

Trish Conley, Treasurer, reported on the status of the Society's accounts. The Society had a positive balance of \$645 after paying various bills totaling

\$554 in June. An auditor to review the ASLC books is required. This audit/review needs to be done by the end of the year. Jerry Gaber volunteered to perform the review.

Nominating Committee:

A committee to select officer candidates for 2022 is formed at the July 2021 meeting per the By-Laws. Candidates will be voted on at the Annual Meeting in October. Tim Kostelecky volunteered to chair the committee and Tracy Stuart and Steve Barkes will assist. Jerry Gaber moved to accept the committee members and Bert Stevens seconded. The motion was approved.

Old Business:

No additional old business was considered.

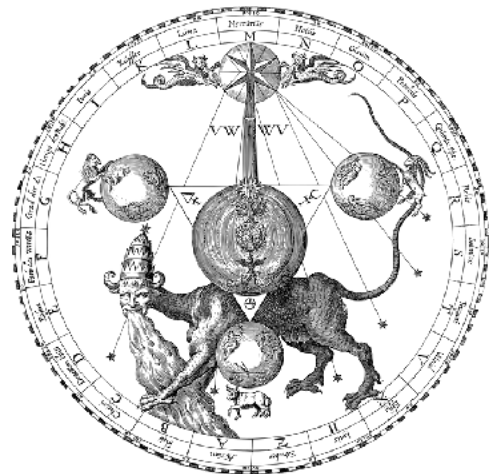
New Business:

No additional new business was offered for consideration.

The July 2021 meeting was adjourned at 8:50 pm.

-Respectfully submitted:

John McCullough
Secretary, ASLC



Member Images

IC1396A "Elephant Trunk Nebula" in Cepheus - Michael Sherick



Total image data was 11 x 180s Luminance; 4 x 300s Red; 3 x 300s Green; and 5 x 300s Blue. Luminance was unbinned and RGB data was binned 2x2.

NGC 7497 behind molecular cloud MBM 54 in Pegasus - Alex Woronow

Partially concealed by an anatomizing swarm of a black and dimly lit nebula in our Milky Way lies the distant spiral galaxy NGC 7497. The dust and gas clouds, MBM 54 (part of the Integrated Flux Nebula) in our galaxy, lies maybe 1,000 light-years from us; the galaxy is about 60,000,000 light-years distant.

“Lonely Perseid” above Cassiopeia - Bob Kimbell



I took fifty shots at 20"/shot using my new 14mm f2.8 camera lens. Caught just one meteor located above Cassiopeia before the clouds closed in.