

# The High Desert Observer

July 2022

## This Month's Meeting - July 22, 2022

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

## Speaker for the Month - Gordon Telepun



## Preparing for the 2024 Total Solar Eclipse

**Tips to enjoy, observe, and photograph it.**

Gordon Telepun is a board-certified plastic surgeon as a profession. He has had a lifelong interest in astronomy since childhood but it took until June 21, 2001, for him to witness his first total solar eclipse in Zambia, Africa. He would then successfully experience and photograph total eclipses in 2002, 2006, 2017, and 2019. As an extension of his love for educating patients about



their complex operations, he is dedicated to helping people get the most out of their eclipse day experience. In 2017 his unique mobile device eclipse timing app, Solar Eclipse Timer, helped many, many people enjoy the eclipse more. It did so because it is a “talking eclipse timer” that announces countdowns and observation tips. He has a YouTube channel, Solar Eclipse Timer, dedicated to solar eclipse education. This past April he released a unique solar eclipse preparation book in the electronic format only called “Eclipse Day – 2024 and More! How to enjoy, observe, and photograph a total solar eclipse.”

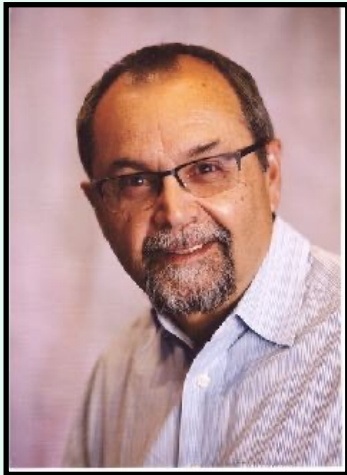
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## From the Desk of Ed Montes ASLC President

### James Webb Telescope

This month the most technically advanced telescope in history came on line. It's in a halo orbit, an ellipse around a "stable" Lagrange L2 point about 1.5 million kilometers beyond Earth's orbit. It's positioned such that it avoids the shadows of the Earth and moon so that it can stay at about 50 degrees Kelvin, its optimal operating temperature. There are so many more details – physical, optical, engineering, scientific – that went into the successful deployment of this amazing machine that I certainly don't understand them all nor can I even catalog them. I am in awe of this accomplishment, as I'm sure we all are. I am also waiting with bated breath for more images to come pouring forth and for new discoveries of every kind to emerge. Forget about a "golden" age, we are in a platinum or diamond or just plain AMAZING age of astronomy. We are fortunate to live in this time of discovery.



### Club Business

We will be reviewing our budget for 2022-2023 at this month's meeting. We will also be asking a member (not on the Board) to volunteer to sit with Trish to audit our finances. Our organization is pretty straightforward, no real complexities, so this exercise is neither complicated nor time consuming. If you are interested in helping with this please let me know by email –

edward.montes@gmail.com, or by volunteering during the meeting.

Also, though it seems far away, please start thinking about volunteering for booth duty at the Renaissance Faire in early November.

### Speaker this Month

In the spirit of recognizing that it's never too early to start planning for significant events, our speaker this month will be talking about getting ready to observe and photograph solar eclipses. We have two significant events coming our way in the next 2 years. An annular eclipse will be crossing through New Mexico on October 14, 2023. Its center line will pass through Chaco Canyon, then just north of Albuquerque, then near Roswell, and pass right through Hobbs as it exits NM. Consider this good practice for what follows the next year.

On April 8, 2024 a total solar eclipse will cut a swath through the US. Much of the time will be in Texas where the center line will be through such major metro areas as Fredericksburg, Terrell and Sulphur Springs. The maximum duration of totality will be 4 minutes and 28 seconds.

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

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### ASLC Board of Directors

		<a href="mailto:board@aslc-nm.org">board@aslc-nm.org</a>
President:	Ed Montes	<a href="mailto:president@aslc-nm.org">president@aslc-nm.org</a>
Vice President:	Tim Kostelecky	<a href="mailto:vp@acslc-nm.org">vp@acslc-nm.org</a>
Treasurer:	Patricia Conley	<a href="mailto:treasurer@aslc-nm.org">treasurer@aslc-nm.org</a>
Secretary:	John McCullough	<a href="mailto:secretary@aslc-nm.org">secretary@aslc-nm.org</a>
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Past Pres:	Tracy Stuart	<a href="mailto:tracystuart@comcast.net">tracystuart@comcast.net</a>

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### Committee Chairs

ALCOR:	Patricia Conley	<a href="mailto:tconley00@hotmail.com">tconley00@hotmail.com</a>
Calendar:	Stephen Wood	<a href="mailto:clearskies2u@gmail.com">clearskies2u@gmail.com</a>
Education:	Rich Richins	<a href="mailto:education@aslc-nm.org">education@aslc-nm.org</a>
Loaner Program:	Tim Kostelecky	<a href="mailto:tim.kostel@icloud.com">tim.kostel@icloud.com</a>
Observatories:		
Leasburg Dam:	Steve Barks	<a href="mailto:Steve.barkes@gmail.com">Steve.barkes@gmail.com</a>
Tombaugh:	Steve Shaffer	<a href="mailto:sshaffer@zianet.com">sshaffer@zianet.com</a>
Outreach:	Stephen Wood	<a href="mailto:clearskies2u@gmail.com">clearskies2u@gmail.com</a>
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HDO Editor:	Tim Kostelecky	<a href="mailto:tim.kostel@icloud.com">tim.kostel@icloud.com</a>

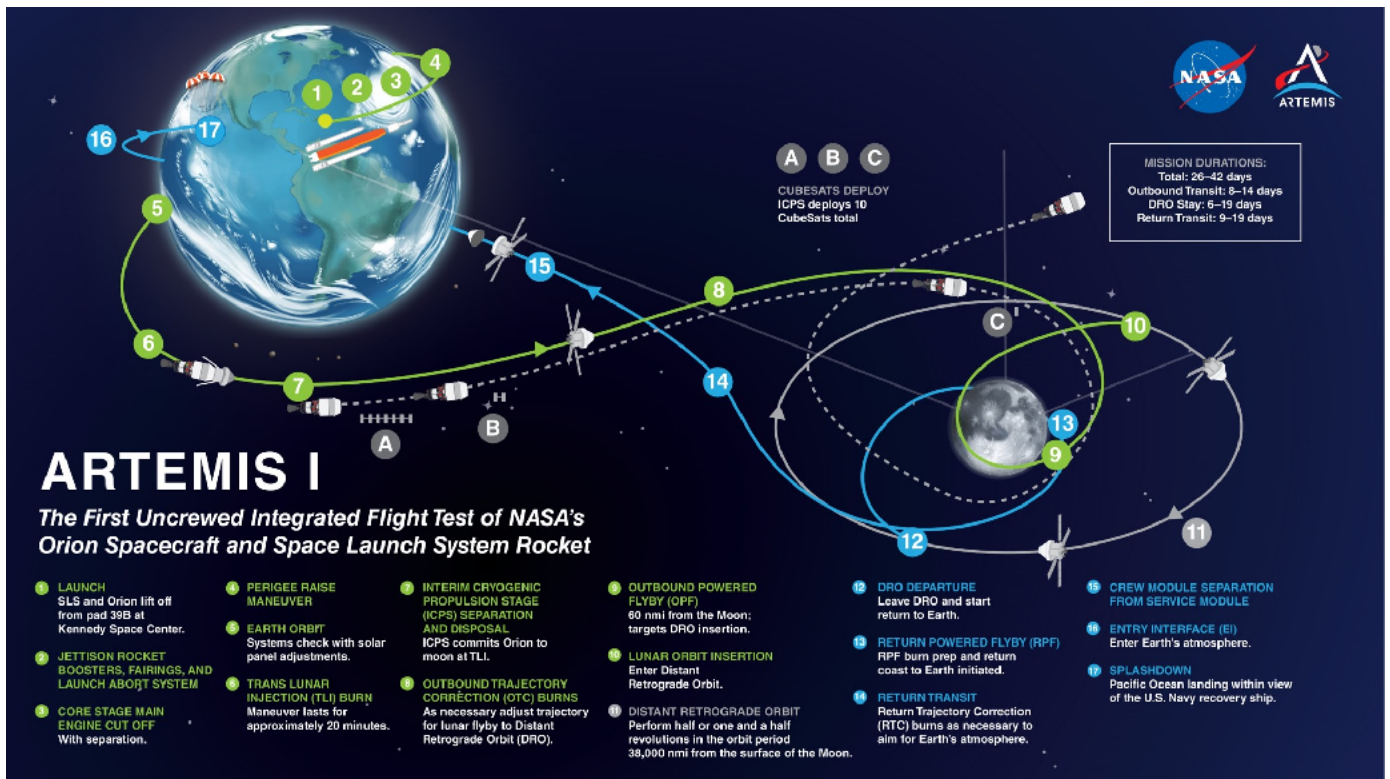


The mission also contains other valuable cargo for its journey around the Moon and back, including CubeSats, several space science badges from the Girl Scouts, and microchips etched with 30,000 names of workers who made the Artemis-1 mission possible. A total of 10 CubeSats will be deployed from the Orion Stage Adapter, the ring that connects the Orion spacecraft to the SLS, at several segments along the mission's path to the Moon. The power of SLS allows engineers to attach many secondary "ride-along" mission hardware like these CubeSats, whose various missions will study plasma propulsion, radiation effects on microorganisms, solar sails, Earth's radiation environment, space weather, and of course,

missions to study the Moon and even the Orion spacecraft and its Interim Cryogenic Propulsion Stage (ICPS)!

If you want to explore more of the science and stories behind both our Moon and our history of lunar exploration, the Night Sky Network's Apollo 11 at 50 Toolkit covers a ton of regolith: [bit.ly/nsnmoon!](https://bit.ly/nsnmoon) NASA also works with people and organizations around the world coordinating International Observe the Moon Night, with 2022's edition scheduled for Saturday, October 1: [moon.nasa.gov/observe](https://moon.nasa.gov/observe). Of course, you can follow the latest news and updates on Artemis-1 and our return to the Moon at [nasa.gov/artemis-1](https://nasa.gov/artemis-1)

### Artemis 1 Mission Map



Mission map of the Artemis 1 mission, showing its path from launch on Earth to retrograde orbit around the Moon and return to Earth, along with locations for its CubeSat deployments.

## Minutes of June 2022 Meeting

**John McCullough - Secretary**

Ed Montes, President, Astronomical Society of Las Cruces (ASLC, the Society), called the June 2022 meeting to order at 7:05 pm on 24 June 2022. He welcomed attendees to tonight's meeting via ZOOM. Twenty-one (21) 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 May 2022 meeting (thanks to John McCullough, Secretary) were published in the June issue of 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. Tim noted a typographical error in the Minutes heading – is: April Meeting Minutes; should be: May Meeting Minutes. A motion to accept the May 2022 minutes as submitted with the noted correction was offered by Bert Stevens, seconded by Alex Woronow. There being no objections, the motion was passed by acclamation.

Ed introduced tonight's speaker, Mr. Gary Starkweather.

Presentation:

Tonight's Tombaugh Series speaker was ASLC member, Gary Starkweather. Gary's topic was "Public Outreach: No Ladder, No Eyepiece". Public outreach programs using large telescopes have always depended upon ladders and eyepieces, but ladders and eyepieces do not always provide a safe or satisfactory experience for many people, and only one person at a time can be served. Gary decided to merge several astrophotography and live streaming technologies together to create a public outreach resource that displays night sky objects on display screens or to remote audiences on streaming platforms or simultaneously to both.

At heart, Gary is an audiophile/electronics

engineering enthusiast. Upon retiring in 2007, he got his second telescope and began learning astrophotography. In 2012 Gary and his wife bought land in New Mexico at the New Mexico Astronomy Village (NMAV) near Deming. Today, he is a full time resident at NMAV and the astronomy facilities there are completed. Now for Gary, it's all about astronomy, all the time.

Officer/Committee Reports:

Treasurer:

Trish Conley, Treasurer, reported net income of \$42.13 for the month. Although finances are doing well for the fiscal year (+\$1346 so far), she will pay several bills within the coming month including Astronomical League (AL) dues, an annual donation to the International Dark Sky Association (IDA), and PO box rental (increased to \$182 a year).

Outreach:

Stephen Wood, outreach coordinator, reported the last Moon Gaze was "clouded" out. He has been contacted about supporting the STEM program in Chapparral. Steve Barkes noted he will need help (2 people?) for the June LDSP event. It was also noted that solar events could be substituted for LDSP evening events that get canceled by bad weather.

Stephen wondered how public events are cancelled because of inclement weather. Ed noted that the policy is evolving but cannot be based solely on a sky clock prediction; weather changes too quickly and drastically (good and bad) for that.

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

Steve Barkes, committee chairman, had no additional updates.

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

ASLC-West:

Michael Nuss, program coordinator, reported a cloudy weekend over Memorial Day at both City of Rocks and Rockhound State Parks. The group

will not try to hold public events until the skies potentially clear in September.

Loaner Telescope:

Tim Kostelecky, program coordinator, reported he plans to update the available telescope listing quarterly. Otherwise, he had no updates.

Old Business:

No old business was offered for consideration.

New Business/Reminders:

A budget auditor must be selected in July. A budget planning meeting should be held in September for the '22-'23 budget year.

Astronomical League Convention (ALCon) 2022 – ALCon 2022 will be 2830 July in Albuquerque, NM. 2023 ASLC officers will be elected, and the budget presented at the Annual Meeting in October.

2022 Renaissance ArtsFaire will be 0506 November at Young Park. The Society's 'presence' is due for an update.

The next Board of Directors meeting is pending. Updates for Outreach events will be located at the \*.org web address.

No additional new business was offered for consideration.

The June 2022 meeting was adjourned at 8:43 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 Now**



### **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 August 15th.**



### 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. Currently housed on a simple manual alt-az mount (the iOptron shown is not working, but we're looking at possible fixes). The scope is good visually for moon, planets and bright star clusters. If we can get it perched on a nice mount, a field flattener is available for astro-imaging. **Available September 1st.**



### 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 September 1st.**

## Member Images

### M16 (Eagle Nebula) in Serpens - Alex Woronow



M16: Cosmic Erosion in Progress!

The excellent HSO subs available for this image made the processing quick and easy. Only 3.5 hrs start to finish.

The amazing detail drove me to throw all my best image-processing tools at it while trying to restrain myself from introducing too many sharpening artifacts. The result makes me happy.

### NGC 3813 Spiral Galaxy in Ursa Major - Chuck Sterling



GC 3813 (also known as MCG 6-26-19 , PGC 36266 and UGC 6651) is a spiral galaxy located about 67 million light-years from Earth in the constellation Ursa Major. The first discovery was made by John Frederick William Herschel on April 28, 1785.