

The High Desert Observer

May 2021

This Month's Meeting - May 28, 2021

Meeting will be virtual via Zoom®, to be held on Friday, May 28th at 7 p.m.

Speaker for the Month - Scott E. Ostrem, P.E.
The Journey to Space aboard a Virgin Galactic Spaceflight System



Scott has been at Virgin Galactic 10 years. It has been an amazing journey! Virgin Galactic is in the final phase of flight testing in preparation for commercial service. Scott tells the story of this journey and explains the exciting engineering behind the World's first commercial passenger space aircraft. Scott is experienced in the engineering design, analysis, testing, and certification of composite vehicle structures and integrated systems. He has 33 years of aerospace engineering experience working at GE Astro Space, McDonnell Douglas, Boeing, NORDAM, The Spaceship Company, and Virgin Galactic.



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Coming Events

Typically, ASLC hosts public in-town observing sessions at the Pan Am Plaza on University Ave. and at Tombaugh Observatory on the NMSU campus. All sessions begin at dusk. At our Leasburg Dam State Park Observatory, we normally hold monthly star parties. 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.

Covid-19 Update: We expect to re-establish our public observing programs soon. Keep updated on coming events through our website at www.aslc-nm.org.

From the Desk of Ed Montes ASLC President

On Friday, May 14, I received a phone call from one of the rangers at Leasburg Dam State Park. He's not the chief ranger, but rather the one who is responsible for "interpretive" programs. This means he is, at least theoretically, the one most capable of conveying the natural and cultural history associated with the park and its locale. Because of the presence of the observatory, Astronomy is part of the interpretive programs. He called to tell me that with the COVID restrictions being relaxed, that the ball was now in our court for when we want to start using the observatory again.



We already had permission to use it in small groups, as when Steve, Jerry and Dave went out there to determine the upgrades to the computer equipment and internet access. This is the next step. He wasn't suggesting any particular timeframe to us, he was just letting us know that when WE are ready, we can collaborate with him to re-start our outreach programs and also member usage of the observatory.

So, what do the terms "relaxed restrictions" and "in our court" mean? When I asked that of him, he didn't have an immediate answer, so he put the phone down and I could hear him ask the lead ranger. The ad hoc response was that we could have "around 50 people" in the vicinity of the observatory. I believe that we've never had that many even under the best, most welcoming

circumstances, so I see that as a "non-restriction" restriction. As for how many IN the observatory at any one time, that's completely up to us and how safe we feel (this is part of the "in our court" decisions). As to when we want to start up, again that's in our court. He made no suggestion and said it was entirely up to us as to when we feel safe starting up. Then of course, it's also up to us to decide about social distancing and mask wearing, both for ourselves and for what we ask of the public.

I am eager to re-start our outreach efforts, both Leasburg and Moongaze. We need to have serious discussions about when and how. As a strawman, purely for opening the discussion, I think that for Leasburg, July is a stretch goal and August is a realistic goal. For Moongaze, I'm not sure; it all depends on who feels safe doing it. And in all of these discussions we have to ask what is the liability of the Club with respect to the health of the members and the public.

Outreach is a significant activity for our club. We want to do it, and we want to do it right. This kind of planning isn't fun, but the final product is. Please think about the issues and bring creative ideas to the next meeting.

Speaking of creative ideas, I am very much looking forward to our next speaker: Scott Ostrem. He is the Lead Spaceships Operations Engineer for Virgin Galactic (is that a cool title or what). He'll be talking about what the journey on a Virgin Galactic craft will be like (again COOL).

That's it for now.

Until next month, 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 \$30; Family \$36; 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 | board@aslc-nm.org |
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Featured Article:

Astrophotography With Your Smartphone

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

Have you ever wanted to take night time photos like you've seen online, with the Milky Way stretched across the sky, a blood-red Moon during a total eclipse, or a colorful nebula? Many

astrophotos take hours of time, expensive equipment, and travel, which can intimidate beginners to astrophotography. However, anyone with a camera can take astrophotos; even if you have a just smartphone, you can do astrophotography. Seriously!



Don't expect Hubble-level images starting out! However, you can take surprisingly impressive shots by practicing several basic techniques: steadiness, locked focus, long exposure, and processing. First, steady your smartphone to keep your subjects sharp. This is especially important in low light conditions. A small tripod is ideal, but an improvised stand, like a rock or block of wood, works in a pinch.

Most camera apps offer timer options to delay taking a photo by a few seconds, which reduces the vibration of your fingers when taking a shot. Next, lock your focus. Smartphones use autofocus, which is not ideal for low-light photos, especially if the camera readjusts focus mid-session. Tap the phone's screen to focus on a distant bright star or streetlight, then check for options to fine-tune and lock it.

Adjusting your camera's exposure time is also essential. The longer your camera is open, the more light it gathers - essential for low-light astrophotography. Start by setting your exposure time to a few seconds. With those options set, take a test photo of your target! If your phone's camera app doesn't offer these options, you can download apps that do. While some phones offer an "astrophotography" setting, this is still rare as of 2021. Finally, process your photos using an app on your phone or computer to bring out additional

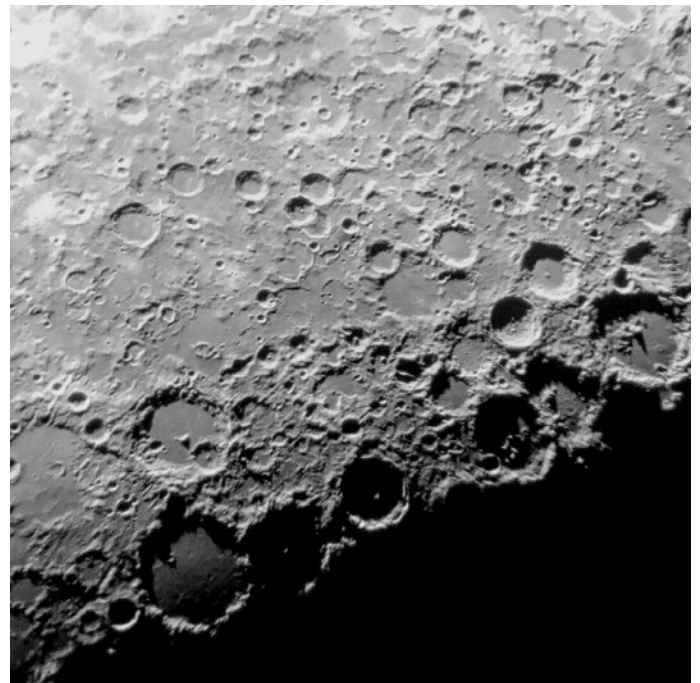


detail! Post-processing is the secret of all astrophotography.

You now have your own first astrophotos! Wondering what you can do next? Practice: take lots of photos using different settings, especially before deciding on any equipment upgrades. Luckily, there are many amazing resources for budding astrophotographers.

NASA has a free eBook with extensive tips for smartphone astrophotography at bit.ly/smartastrophoto, and you can also join the Smartphone Astrophotography project at bit.ly/smartphoneastroproject. Members of astronomy clubs often offer tips or even lessons on astrophotography; you can find a club near you by searching the "Clubs and Events" map on the Night Sky Network's website at nightsky.jpl.nasa.gov.

May you have clear skies!



The Moon is large and bright, making it a great target for beginners. The author took both of these photos using an iPhone 6s.

The crescent moon at sunset (left) was taken with a phone propped on the roof rack of a car; the closeup shot of lunar craters (right) was taken through the eyepiece of a friend's Celestron C8 telescope.

Minutes of April 2021 Meeting

John McCullough - Secretary

Edward Montes, President, Astronomical Society of Las Cruces (ASLC, the Society), called the April 2021 meeting to order at 7:05 pm on 23 April 2021. He welcomed attendees to tonight's meeting via ZOOM. Twentyfive (25) attendees were signed in for the start of the meeting.

Ed welcomed the group and noted that minutes from the March 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, Bert Stevens moved that the March 2021 minutes be accepted as published; Tracy Stuart seconded. There being no objections, the motion was passed.

Ed introduced his friend Brandon Hamil of the Minnesota Astronomical Society.

Presentation:

Brandon's presentation was "The Traveling Astronomer". His entertaining and fast-paced astronomy talk centered around unique astronomy experiences that anyone can participate in if they just venture out onto the road. This country is big and filled with amazing astronomical experiences that simply await your arrival. He, occasionally with his family, has visited almost every one of the fifty states (he could only cover a few in tonight's meeting). Throughout the course of Brandon's extensive national travel, he has met many astronomy celebrities, leading authorities in our field, and owners and leaders of a wide variety of astronomy companies. During his presentation, Brandon talked about some of these people, several unique telescopic observing experiences that anyone can seek out, and numerous astronomy-related facilitates that must be visited.

Bottom-line: traveling can add adventures to stargazing and offer dividends to your hobby that are simply not available in your own backyards! Brandon can be contacted at Brandon-Hamil@icloud.com.

Officer/Committee Reports:

Treasurer:

The Treasurer, Trish Conley, provided a brief financial status report. The Society had a negative cash flow for the month of March of \$334.84. The Society had a positive balance for the current fiscal year to date of \$816.91.

Loaner Telescope:

Tim Kostelecky, program coordinator, has cleaned and inspected several of the Society's telescopes. Tim hopes to have several operational soon and ready for the loaner program. He plans to retrieve a 12" Light Bridge from Steve Barkes that Kyle and Amy Slover-Vensel are interested in trying out.

Outreach:

Chuck Sterling, program coordinator, stated there still were no requests for nor dates reserved for school or public star parties at this time. Tim Kostelecky asked if Chuck had a 'feel' for the future of the Outreach program. Chuck responded he expects limitations to continue through the end of July but wants to begin exploring the possible restart of public events. Ed Montes reported the state parks personnel at LDSP will continue to limit occupancy of the Observatory to five (5) people at this time.

The Observatory at Leasburg Dam State Park (LDSP):

The Upgrades Committee (Dave Doctor, Steve Barkes, Jerry Gaber) has looked at the Park's system and will check the Wi-Fi set-up this coming weekend. The committee members believe they are ready to specify the necessary computer equipment and software for the Observatory upgrades. A virtual star party may be possible in 2-3 months.

New Member Packet:

Rani Bush continues to edit the information contained in the packet but plans to tailor it to the current COVID situation. Ultimately, there will be two (2) sets of information sheets: one very basic taking the current restrictions into account and one for a fully open environment.

Old Business:

Presentations – Ed Montes has the following 2021 meeting presentations scheduled:

May - Scott Ostrem, Virgin Galactic

June - Vic Marris, Stellarvue

Speakers/presentations are needed for the remainder of this year. If members would like to make a presentation or know of someone who could make a presentation of interest to the membership, please contact Ed.

No additional old business was considered.

New Business:

UFO Fest, Roswell – Festival organizers contacted Ed Montes regarding ASLC support for a star party 0203 July outside Roswell, NM. Members had several questions. Ed will ask for more details

before committing.

ALCon 2021 – There not be an inperson ALCon this year. However, the Astronomical League (AL) has contacted the ASLC about sponsors for door prizes at the virtual event during 1921 August.

Trish Conley, ALCOR, will post more information on the group.io. Members can attend the virtual convention for free, however, the AL 75th Anniversary pin costs \$5.00.

Rusty's – The ASLC star party at Rusty's RV Campground will be in two (2) weeks. At least eight people have committed to attend, more are expected for part of the week.

AL Live – The fifth session in the series was held today. Trish Conley got the notice. Members can go to the AL website to view the recording(s).

New Members – Several people have joined the Society recently; only Jens Thielmann was on tonight's meeting.

No additional new business was offered for consideration.

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

Member Images

M57 Ring Nebula in Lyra - Rusty's - Rich Richins



Rusty's Star Party - Steve Barkes



Scorpius/Sagittarius Milky Way - Rusty's - Steve Barkes



Sharpless 2-72 in Aquila - Rusty's - John Kutney



M101 in Ursa Major - Las Cruces - Jeff Johnson



M51 in Canes Venatici - Rusty's - Rich Richins

