



THE LOS ANGELES ASTRONOMICAL SOCIETY

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THE BULLETIN

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NGC 7293 - Helix Nebula
Imaged from Lockwood Valley. Exposure 120 mins. LRGB Filters.
80 mm SV refractor. Camera ZWO 1600

The Helix Nebula, also known as NGC 7293, is a large planetary nebula in the constellation of Aquarius. It is perhaps the nearest planetary nebula to our Solar System. The popular name Helix Nebula refers to the nebula's appearance on photographs. The Helix has been referred to as the "Eye of God" on the Internet, since about 2003.

The Helix Nebula is the closest of all planetary nebulae, lying at a distance of about 650 light years. The nebula spans an area 2.5 light years across. Currently, NGC 7293 is estimated to be 10,600 years old.

Photo Credit: Nasir Jeevanjee



New Contact Info?

If you have recently moved, changed your email address or phone number, please contact our club secretary at secretary@laas.org.

Herman Meyerdierks

By Tim Thompson

Herman Meyerdierks passed away on November 18th 2020, at the age of 90. Herman joined the LAAS in March 1978, so he was a member for over 42 years. And he spent 11 of those years on the LAAS Board of Directors (2001-2012). In return for his many years of service to the LAAS, Herman was made an Honorary Life Member at the 2018 annual banquet.

He was a Star member, and a regular dark night observer, at the Steve Kufeld Astronomical Site, in Lockwood Valley. Herman had well practiced eyes, and was the organizer & on-site judge for more than one of our Messier Marathon observing sessions. He was so good at seeing things that nobody else could see, that some people began to jokingly suggest there was really nothing there. So one year at the annual banquet, Herman received the Empty Sky Catalog Award, dedicated to the friendly myth that he was making things up. He accepted the award with good humor intact. Herman was always ready to help guide beginners in observing, and was a regular for the public star parties at Griffith Observatory. And you could tell by the reactions of people looking through the telescope, that he wasn't making anything up.

Herman was a biologist, and was a senior health inspector for Los Angeles County, when he retired. During one of the traditional Monday night after-meeting gatherings at a local eatery, Herman went to wash his hands and found there was no hot water. After a brief talk with the restaurant manager, he produced his county health inspector ID, and closed the restaurant on the spot. No hot water is a violation of the county health code, and Herman would have none of that, even if he was off duty.

The picture shows Herman smiling, at a recent LAAS annual banquet. He never missed a banquet until his failing health made it too impractical. Herman was a valuable member of the LAAS, and a valuable member of the community at large. He will be missed.



From the LAAS Archives

By Lew Chilton, Club Historian



November marked the passing of Herman Meyerdierks, one of our most ardent and loyal members. He joined the LAAS in 1978 and soon distinguished himself as a keen-eyed observer who developed an almost encyclopaedic knowledge of the night sky. He promoted the annual Messier marathon and served for many years on the LAAS Board of Directors. In 2018, he was made an honorary life member for his long and meritorious service to our Society.

In 1985, Meyerdierks (red arrow) was among those members present at our Steve Kufeld Astronomical Site in Lockwood Valley to honor life member Avery Hildom (on ladder) who joined the LAAS in 1928 when it was known as the Amateur Telescope Makers' Society.

(Photo credit: L. Chilton)

A Little Telephoto Lens Can Still See A Lot

By Ray Blumhorst

The comet C/2020 M3 (Atlas) of Saturday, 11-14-2020, imaged with a Canon 100mm, f2.8 lens was a nice bonus on a cool night under the stars at SKAS. According to SpaceWeather.com, "*Comet ATLAS is green because it is cold and carbonaceous. The icy comet, slightly warmed by the rays of the distant sun, spews diatomic carbon (C₂) into space--a substance that glows green in the frigid vacuum of space.*"



Arguably, the best imaging of the night came from the Canon 200mm, f2.8 telephoto L lens, piggybacked on an 8" Edge HD telescope. The 200mm telephoto is a little jewel, IMHO, and not as pricey as some of Canon's other lenses, although still not cheap.

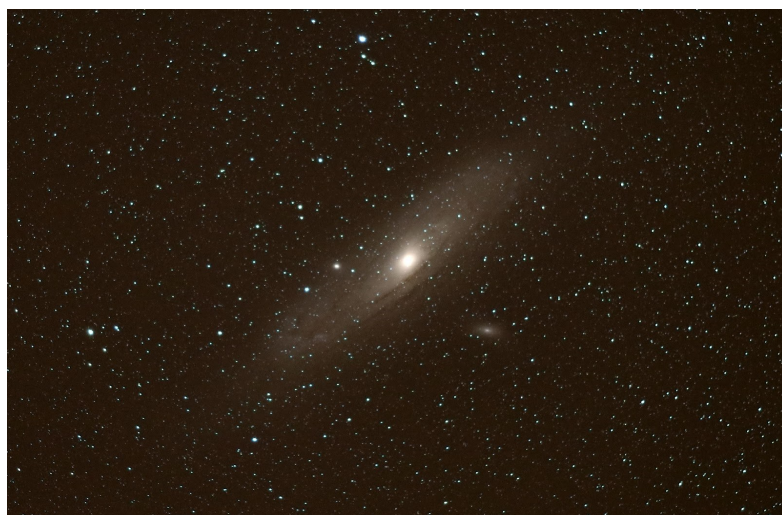
My mount for the Saturday session was the first mount I ever owned. It operated terribly in as it came from the factory. I thought it was just me, struggling with the learning curve, so I never sent it back to the manufacturer. Struggling with it until the warranty expired was my mistake, as it eventually got worse. After sending it to DeepSpaceProducts.com in AZ for their HyperTune service, it's now performing excellently, even outstandingly so all's well that ends well I guess.

Continued on next page



The Pleiades was my primary target of the evening. My goal was to bring out the reflection nebulosity in that object so I used as low an ISO and as long an exposure as possible. With a little help from Photoshop in post-processing, I at least got better reflection nebulosity than in previous efforts. I'm still not satisfied, but every less-than-satisfied effort is a learning experience, and a motivation to try to do better.

At a distance of 2.5 million light years away, the Andromeda galaxy is a challenging target to image so I pointed the 200mm lens at it and captured what I hoped would be good results. The challenges didn't end with getting Andromeda into the camera. The challenges of processing in Photoshop confronted my eyes with visual nuances that strained the bounds of my visual perception.



Last but not least were Jupiter's Galilean moons, orbiting Jupiter in a counterclockwise direction. Left to right the moons are: Callisto (the dimmest, but 2nd largest), Ganymede, Io, and Europa. Here, Io is at the left edge of Jupiter and just beginning to eclipse its immensely larger, counterclockwise rotating planet. This was the only image I took all night with the 8" Edge HD telescope. Saturday night's imaging session was dominated by telephoto lenses that did not disappoint. A little telephoto lens can see a lot - - - if its aperture is fast enough.

My Unistellar eVscope

By Tim Russ

Here are some pictures from my Unistellar eVscope.

It's not high-end astro photography gear by any stretch, but....it's only 2 pieces to set up, automatic GPS alignment within seconds at the touch of a button, works off of a cell phone app, via built-in WiFi.

Slews to and Tracks accurately, and can filter out city lights.

Can be used in observational or imaging capacity.

ALL IMAGES (except the Ring Nebula and Dumbbell) taken within the city of Los Angeles









Sunday May 24th 2020 – Ford Observatory

By Dave Nakamoto

In a first recent attempt to see if the venerable 18-inch f/7 Cave/Astrola Newtonian reflector could be used for photography, I used my Orion G-10 camera. We needed a thicker base plate and a 2-inch extender tube to reach the prime focus.

We left the G-10 on the 18-inch, then hunted down M13. It was plainly visible in the 60mm finder. To the left is the result ! For some reason, the colors are muted, probably some software feature in SharpCap, but PaintShopPro brought them out. North is to the upper right corner, and a comparison with an SSS image indicates the FOV is roughly 20' x 15'. 25 images were stacked, each four seconds long, using the Livestack feature in Sharpcap. This view is close to the visual view but shows a lot more stars. The predominant color is yellowish stars, with blue stars fainter and in “the background”.



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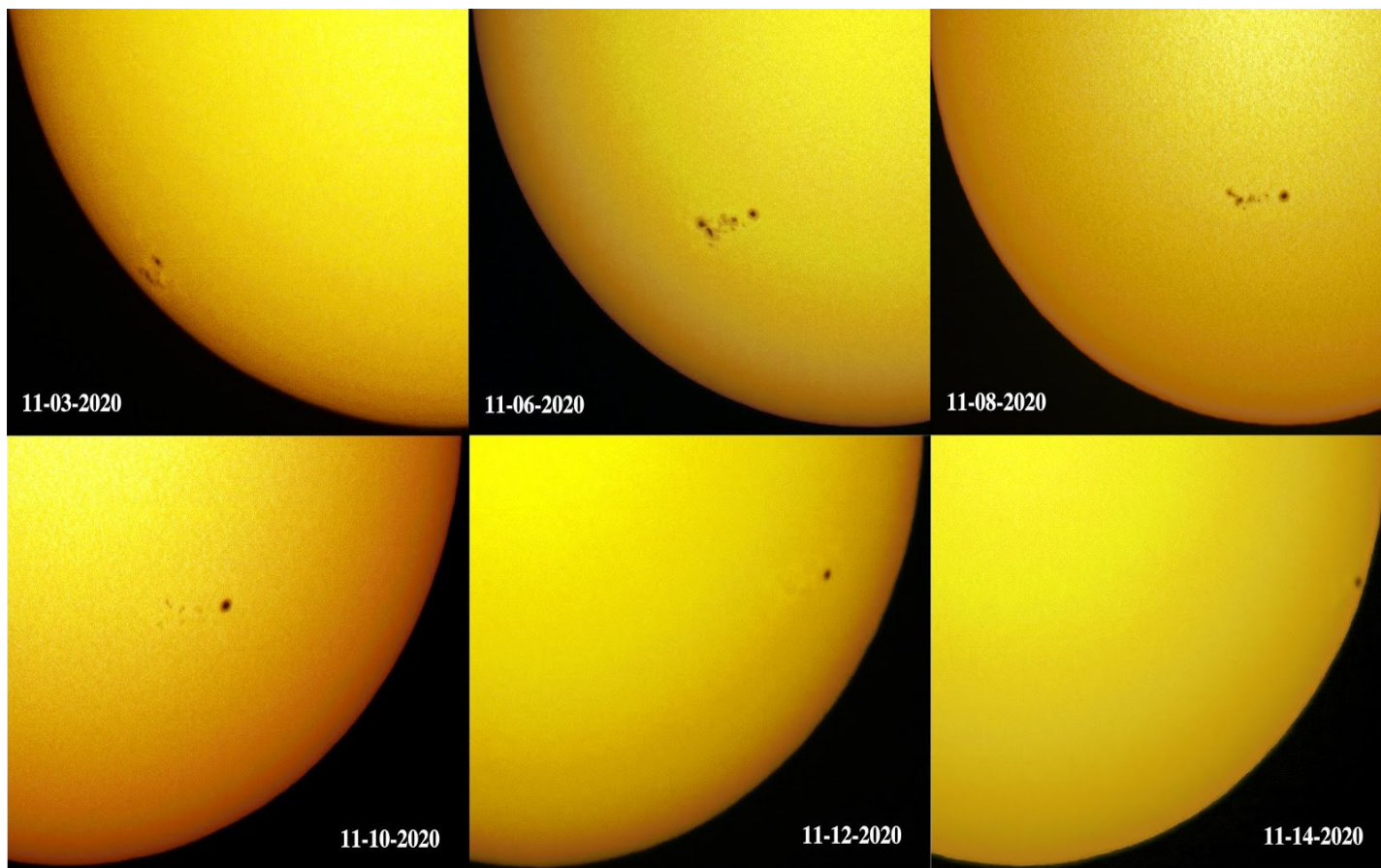
M57 was the final target of the night. I used it to determine the FOV for the G-10 Orion camera minus the 0.5x reducer on the 18-inch f/7 Newtonian. Again, north is to the upper right corner. I didn't cool the camera, which explains the red spots due to thermal heating, but if I used a filter to get rid of them, the incredible detail in the nebula would have been lost. 159 images were stacked, each two seconds long. The central star was visible even in the single images.

We discussed trying for M51, but it was 11:20pm or so, and the entire group wanted to call it a night. The remaining half a dozen or so observers left at midnight.



I See Spots Before My Eyes

By Ray Blumhorst



The long absence of major sunspots on the Sun appears to be over as a big new sunspot group marched its way across the Sun at lower latitudes in early November.

In the period from November 03 through November 14 (a 12 day period) a major sunspot group appeared very near the left limb of the Sun. After 12 days it was very near the right limb of the Sun.

Photo Credit: Ray Blumhorst

The Rosette Nebula

By Nasir Jeevanjee



Rosette Nebula imaged from Lockwood valley using narrowband filters. Total Exposure 81 minutes. Processed in Pixinsight with Hubble palette color scheme.

The Rosette Nebula 5200 light years away is a large, circular emission nebula in the constellation Monoceros. It surrounds a cluster of hot, young stars known as the Rosette Cluster (NGC 2244). Appears roughly twice the size of full moon in the sky.

Photo credit: Nasir Jeevanjee

My Telescope Setup At the Sky's The Limit Observatory

By Jeremiah Pitts



Here is my setup at Sky's the Limit Observatory in Twenty nine Palms. Orionid meteor shower and star gazing with my Celestron 6SE Nexstar telescope.

The Iris Nebula - NGC7023

By Brian Paczkowski



The Iris Nebula (NGC7023). This is a beautiful, bright reflection nebula in the constellation Cepheus. Taken over the past couple of months at my telescope's location in New Mexico. This is a Lum+RGB composite image made from a total of 23 hours data. Processed in PixInsight. (Televue 76, 10Micron GM2000 HPS II mount, QSI 683 CCD camera with Astrodon LRGB Ha OIII SII filters at -20C)

Photo Credit: Brian Paczkowski

The Flaming Star Nebula - IC405

By Brian Paczkowski



The Flaming Star Nebula (IC405). This is an emission and reflection nebula in the constellation Auriga. Taken over the past month at my telescope's location in New Mexico. This is a Hydrogen Alpha+RGB composite image made from a total of 32 hours of data.com .

Photo Credit: Brian Paczkowski

December Star Report

By Dave Nakamoto

In July we got close to Jupiter and Saturn. In October we got very close to Mars. Now, to end the year, we witness an event that has not happened for centuries. On December 21st, Jupiter and Saturn will pass within 0.1 degrees of one another, five times smaller than the width of the full moon ! Some sources say a passage this close between these two giant planets hasn't happened since 1623 AD/CE !

Through any telescope capable of magnifications of 60x or more, you'll be treated to a spectacular sight, as you can see details on both planets, the 4 moons of Jupiter, and Saturn's largest moon Titan, all within a single view ! In addition, Jupiter's largest moon, Ganymede, will pass in front of Jupiter. Because it is relatively dark compared to Jupiter, Ganymede will appear as a dark spot. The only downside of this is that Jupiter and Saturn will set two hours after the sun does. They start off quite low in the southwest. So you'll need a clear LOW horizon in the southwest. Elevation is good too, since it lowers the horizon and makes for a clearer view.

With Jupiter, magnifications of around 60x or more will show you the twin belts around the planet and the four Galilean moons, and the Red Spot when it's on the side facing earth. The moons orbit around Jupiter, and it was this dance that caught the eye of Galileo and made him realize that these star-like objects were moving around Jupiter, and not the earth. Occasionally the moons pass in front of Jupiter, and at these times they might cast a shadow on Jupiter's disk. They can also pass behind Big Jove, in which case you might see a moon disappear as it goes into Jupiter's shadow.

Saturn appears as large as Jupiter if you count its rings. Unfortunately, being twice as far from the Sun as Jupiter means the moons of Saturn receive half the amount of light from the Sun, and therefore appear much dimmer than the Galilean moons. The brightest is Titan, making it easily visible in large binoculars or a small telescope.

There's quite a lot to be seen on Saturn as seen through a telescope capable of magnifications of 100x or more. There is the darkening around its north pole, the dark band running around its equator, the two rings separated by the dark Cassini's Division, the grey semi-transparent C-ring inside the B ring which is most easily visible when it crosses in front of Saturn, and Saturn's shadow being cast on the rings when the latter pass behind the planet.

Mars continues to start each evening slightly further west. It is visibly getting smaller as it gets further away from earth. It will require a telescope capable of magnifications of 150x or more to see anything on its surface.

The Geminid meteor shower peaks on the night of Dec 13th through the morning of the 14th. The New Moon is on those nights, so it won't interfere with the view. The constellation of Gemini the Twins is up all night, moving from northeast at sunset to northwest at sunrise, passing directly overhead around midnight. The Geminids run about 50 or so per hour, but are slow and bright, so it's a good show. Again, your best bet to see them is to get away from lights and light glows. The best device to use to see them is a lounge chair, the back of which should be positioned low, so that your head and neck are supported while you're looking up. This eases the strain of such a position, needed if you're going to spend an hour or so enjoying the show.

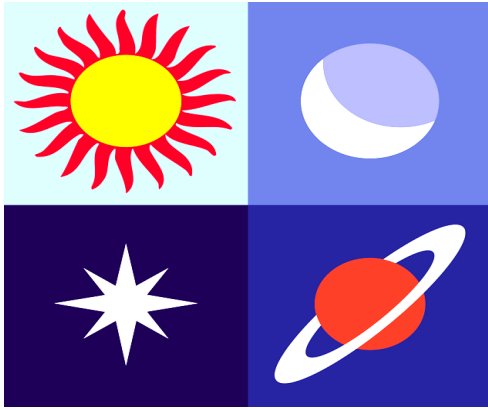
The Moon's phases in December are:

Full Moon – 1st
 Last Quarter – 7th
 New Moon – 14th
 First Quarter – 22nd
 Full Moon – 30th

Notice we get two full moons in December.

David Nakamoto has been observing the heavens through various scopes since he was in the 5th grade. You can contact Dave by email at: dinakamoto@hotmail.com.





Almanac

December 4 - New Moon. The Moon will be located on the same side of the Earth as the Sun and will not be visible in the night sky. This phase occurs at 07:44 UTC. This is the best time of the month to observe faint objects such as galaxies and star clusters because there is no moonlight to interfere.

December 4- Total Solar Eclipse. A total solar eclipse occurs when the moon completely blocks the Sun, revealing the Sun's beautiful outer atmosphere known as the corona. The path of totality will for this eclipse will be limited to Antarctica and the southern Atlantic Ocean. A partial eclipse will be visible throughout much of South Africa. (

December 13, 14 - Geminids Meteor Shower. The Geminids is the king of the meteor showers. It is considered by many to be the best shower in the heavens, producing up to 120 multicolored meteors per hour at its peak. It is produced by debris left behind by an asteroid known as 3200 Phaethon, which was discovered in 1982. The shower runs annually from December 7-17. It peaks this year on the night of the 13th and morning of the 14th. The waxing gibbous moon will block out most of the fainter meteors this year. But the Geminids are so numerous and bright that this could still be a good show. Best viewing will be from a dark location after midnight. Meteors will radiate from the constellation Gemini, but can appear anywhere in the sky.

December 19 - Full Moon. The Moon will be located on the opposite side of the Earth as the Sun and its face will be fully illuminated. This phase occurs at 04:37 UTC. This full moon was known by early Native American tribes as the Cold Moon because this is the time of year when the cold winter air settles in and the nights become long and dark. This moon has also been known as the Long Nights Moon and the Moon Before Yule.

December 21 - December Solstice. The December solstice occurs at 15:50 UTC. The South Pole of the earth will be tilted toward the Sun, which will have reached its southernmost position in the sky and will be directly over the Tropic of Capricorn at 23.44 degrees south latitude. This is the first day of winter (winter solstice) in the Northern Hemisphere and the first day of summer (summer solstice) in the Southern Hemisphere.

December 21, 22 - Ursids Meteor Shower. The Ursids is a minor meteor shower producing about 5-10 meteors per hour. It is produced by dust grains left behind by comet Tuttle, which was first discovered in 1790. The shower runs annually from December 17-25. It peaks this year on the night of the 21st and morning of the 22nd. The nearly full moon will be a problem this year, blocking all but the brightest meteors. But if you are patient enough, you may still be able to catch a few good ones. Best viewing will be just after midnight from a dark location far away from city lights. Meteors will radiate from the constellation Ursa Minor, but can appear anywhere in the sky.

Source: <http://www.seasky.org/astronomy/astronomy-calendar-2020.html>

Outreach Event Advisory

Until further notice, all outreach and public event programs are cancelled due to the current pandemic.

The Garvey Ranch Observatory is closed to the Public.

December 2020

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9 Board Meeting (Virtual)	10 Happy Chanukah!	11	12 Dark Sky Night
13	14 General Meeting & Club Election	15	16	17	18	19
20	21	22	23	24	25 Merry Christmas!	26
27	28	29	30	31 New Year's Eve		



Meet The New Members

Welcome to the LAAS!



Kristina Miller and Family

.Paul Didomenico and RhoiGlen Faltado

Mark and Suzanne Detweiler

Sheldon Gordon and Family

Mark Bleiweiss and Family

Jamie Luskin

LAAS Board Meetings

.Due to the pandemic, all Board Meetings are now held online, live on Zoom. Please check the information posted in the IO Group Forum for any current news related to these meetings. If you wish to attend a board meeting, please send a request to secretary@laas.org for a link to Zoom.

Volunteer Opportunities

Every LAAS member is a volunteer at some point. Some members volunteer to share telescopes with the public, while others tackle administrative duties, help out at our community and public events, or join a club committee. Taking photos at our events and writing articles about events for our club newsletter are great ways to volunteer and become more involved in the LAAS as a member.

HOWEVER, due to Covid-19 restrictions in our area, all outreach events have been cancelled until further notice.

Volunteers are still needed to write articles for our monthly newsletter or share images captured of the night sky. Members are also welcome to come up with new ideas and future activities for the membership which can be shared in Board meetings. If you are artistic and enjoy creating posters or flyers, or printable astro-educational handouts for further star parties, please let us know.

Time To Renew Your Membership?

Please remember to renew your membership once you receive notice from the Club Secretary in your email inbox.

Please send any new contact information to the club secretary at secretary@LAAS.org.



LAAS Outreach Program

The mission of LAAS is to promote interest in and advance the knowledge of astronomy, optics, telescope making and related subjects. In furtherance of its mission, LAAS conducts public star parties and other outreach events that are intended to enhance the public's understanding of astronomy and its enjoyment and appreciation of the beauty and wonders of our universe.



We provide outreach events at local schools, Griffith Observatory, Mt. Wilson Observatory, various state and county parks, and community events.

Join our Outreach team of volunteers today.

Contact Heven Renteria, our Outreach Coordinator at Outreach@LAAS.org



Want to include astronomy outreach at your school's science night or open house? Follow the link below to access the request form:

[https://nightsky.jpl.nasa.gov/club-eventrequest.cfm?
Club_ID=1344](https://nightsky.jpl.nasa.gov/club-eventrequest.cfm?Club_ID=1344)

LAAS Club Swag

LAAS T-SHIRTS, HOODIES, MUGS, AND MORE!

To find new merchandise from our store, please use the following link: <https://www.laas.org/store>

Please note all prices listed are subject to change and include all shipping and handling costs. All items will be shipped directly to the address you provide on your order form.



Please remember all LAAS Outreach activities are postponed due to the Covid-19 pandemic.

Amazon Smiles

The LAAS is now listed on Amazon Smiles. When you purchase any goods on Amazon.com, Amazon will donate a small percentage of the funds they receive from you, back to the LAAS. Here's some information to help bring in funds for our club projects:

What is AmazonSmile?

AmazonSmile is a simple and automatic way for you to support your favorite charitable organization every time you shop, at no cost to you, with the added bonus that Amazon will donate a portion of the purchase price to your favorite charitable organization., such as the LAAS!

Learn more by following this link:

<http://smile.amazon.com/>



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John O'Bryan, Jr.

Treasurer

Astronomy Magazine Discounts

Discounts for astronomy magazines can be found on the internet. Look for the best deals possible. Send a copy of your LAAS membership card with your check or payment to receive a club member discount.

Astronomy
magazine

As a member of the Night Sky Network, you may use the above link to renew your Astronomy Magazine subscription (or enter a new subscription) at the club discount rate. If this is a renewal, Astronomy Magazine will match your entered name and address and extend your subscription. For inquiries, please contact Astronomy Magazine customer service & sales at 1-800-533-6644.

[Click here to subscribe to Sky and Telescope Magazine.](#)



Join the Astronomical Society of the Pacific and help support the cause of advancing science literacy through engagement in astronomy. Member benefits include a **subscription to the online Mercury Magazine**, published quarterly, and **Astronomy Beat**, a monthly on-line column written by "insiders" from the worlds of astronomy research and outreach.

Subscribe or renew to the McDonald Observatory's StarDate Magazine and receive a special discount. Go to this page and press "Add to Cart" under the kind of subscription you want:

<http://stardate.org/store/subscribe>
Then, on the Checkout form, enter "network" in the Coupon Code box.



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213- 673-7355 (Checked daily)

Griffith Observatory:

213-473-0800

Sky Report:

213-473-0880

Lockwood Site:

661-245-2106

Not answered, arrange
time with caller.

Outgoing calls – Collect or calling card only.



Follow us on social media by clicking
on one of the images below



Instagram



Find astronomy outreach activities by
visiting NASA's Night Sky Network:

<https://nightsky.jpl.nasa.gov/about.cfm>

YouTube

twitter

**The Los Angeles
Astronomical Society**
2800 E. Observatory Road
Los Angeles, CA 90027

Call us for more information and
about our organization and
outreach program.
213-673-7355

Visit our web site at
www.LAAS.org

From:
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