



THE LOS ANGELES ASTRONOMICAL SOCIETY

THE BULLETIN

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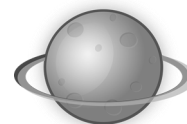
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.July 18, 2020

“My best photo-Comet Neowise with ion tail & random shot into part of the Milky Way.” The image was shot at our dark sky site in Lockwood Valley, Ca.

Photo Credit: Joe Phipps

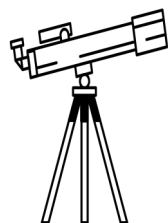


New Contact Info?

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

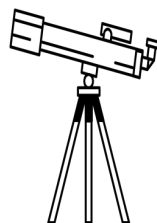
Membership Renewal Notices

Keep your eyes open for email from the club secretary so you don't miss your renewal notice. Once your membership expires, you may need to reapply.



Upcoming Observing Events:

- Family Night—August 8th
- Dark Sky Night—August 15th.



Outreach Event Advisory

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

Comet Neowise Experience

By Elizabeth Wong



Good locations for viewing when it was barely naked eye???

Count on LAAS members to come through, and fast, for folks who wanted to see the comet as soon as it started appearing on the northwestern evening sky. I had made three separate attempts to find a suitable low horizon northeastern 4 am view with no success.

So on July 15, Member Dana Patchick in Santa Monica posts on our Yahoo Group message board about a fantastic spot in the San Gabriel Valley found by Member Tokuo Nakamoto -- Duarte Skate Park, nestled below the San Gabriel Mountains, with an excellent view of the ridgeline and the solar tower on Mt Wilson. I crawled through the deliberate hole in fence meant to give the rippers a lovely sense of illegal trespass.

On the soccer field, I found Tokuo with his camera setup...his friend Charmin....and even Jane Houston Jones, JPL/ NASA education outreach for Cassini mission. I was able to rendezvous with two of my non-LAAS friends who were as giddy with excitement as me. About 15 folks gathered there thanks to Dana's post!!!





The group gathered to view the comet.



Tokuo Nakamoto, LAAS

Summer Triangle Corner: Deneb

By David Prosper



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 nightsky.jpl.nasa.gov to find local clubs, events, and more!

The Summer Triangle is high in the sky after sunset this month for observers in the Northern Hemisphere, its component stars seemingly brighter than before, as they have risen out of the thick, murky air low on the horizon and into the crisper skies overhead. Deneb, while still bright when lower in the sky, now positively sparkles overhead as night begins. What makes Deneb special, in addition to being one of the three points of the Summer Triangle? Its brilliance has stirred the imaginations of people for thousands of years!

Deneb is the brightest star in Cygnus the Swan and is positioned next to a striking region of the Milky Way, almost as a guidepost. The ancient Chinese tale of the Cowherd (Niulang) and the Weaver Girl (Zhinü) - represented by the stars Altair and Vega - also features Deneb. In this tale the two lovers are cast apart to either side of the Milky Way, but once a year a magical bridge made of helpful magpies – marked by Deneb – allows the lovers to meet. Deneb has inspired many tales since and is a staple setting of many science fiction stories, including several notable episodes of *Star Trek*.

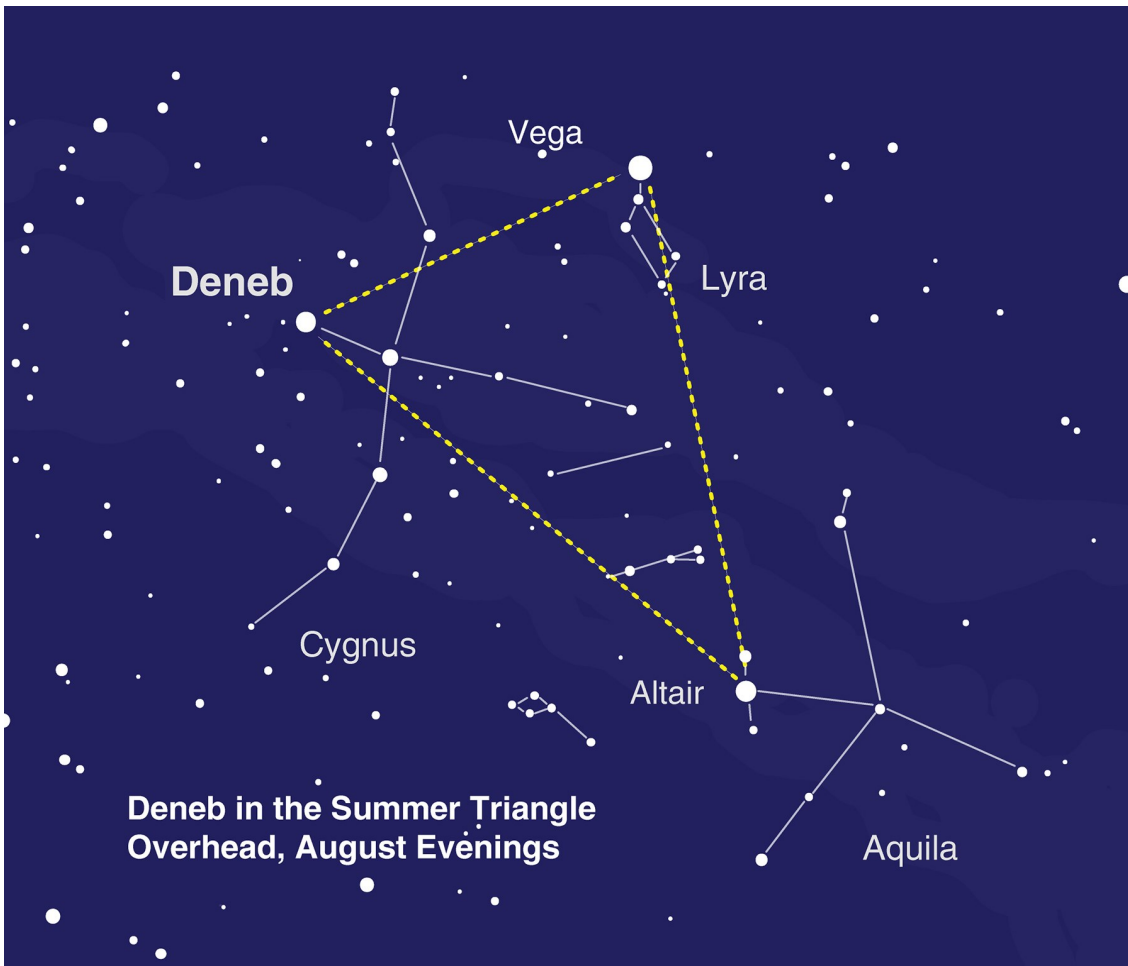
Astronomers have learned quite a bit about this star in recent years, though much is still not fully understood – in part because of its intense brightness. The distance to Deneb from our Sun was measured by the ESA's Hipparcos mission and estimated to be about 2,600 light years. Later analysis of the same data suggested Deneb may be much closer: about 1,500 light years away. However, the follow-up mission to Hipparcos, Gaia, is unable to make distance measurements to this star! Deneb, along with a handful of other especially brilliant stars, is too bright to be accurately measured by the satellite's ultra-sensitive instruments.

Deneb is unusually vivid, especially given its distance. Generally, most of the brightest stars seen from Earth are within a few dozen to a few hundred light years away, but Deneb stands out by being thousands of light years distant! In fact, Deneb ranks among the top twenty brightest night time stars (at #19) and is easily the most distant star in that list. Its luminosity is fantastic but uncertain, since its exact distance is also unclear. What is known about Deneb is that it's a blue-white supergiant star that is furiously fusing its massive stocks of thermonuclear fuel and producing enough energy to make this star somewhere between 50,000 and 190,000 times brighter than our Sun if they were viewed at the same distance! The party won't last much longer; in a few million years, Deneb will exhaust its fuel and end its stellar life in a massive supernova, but the exact details of how this will occur, as with other vital details about this star, remain unclear.

Discover more about brilliant stars and their mysteries at nasa.gov.



Long exposure shot of Deneb (brightest star, near center) in its richly populated Milky Way neighborhood. Photo credit: Flickr user jpstanley. Source: <https://www.flickr.com/photos/jpstanley/1562619922> License: <https://creativecommons.org/licenses/by-nc-sa/2.0/>



Spot Vega and the other stars of the Summer Triangle by looking straight up after sunset in August!

Monthly Star Report

By Dave Nakamoto

Jupiter and Saturn will put on quite a show this month. Jupiter passed its opposition point on July 14th, when it was directly opposite the Sun in the sky. Saturn did the same on July 20th. In August they dominate the evening skies directly to the south. By the end of the month, Mars starts poking its head above the eastern horizon starting around 10:00 PM, on its way to its closest approach to earth in two years, on October 13th.

Jupiter, visibly the largest planet in any telescope, shows up well with magnifications of 60x and higher. You can see the twin belts around the planet, the four Galilean moons, and occasionally the famous Red Spot. It was the motion of these moons around Jupiter that made Galileo realize that they were moving around Jupiter, and not the earth. This violate the Ptolemaic universe that held that everything revolved around the earth.

Occasionally the moons pass in front of Jupiter, and then they cast a shadow on its disk. They can also pass behind Jupiter, in which case you might see a moon disappear as it goes into Jupiter's shadow.

Saturn is twice as far away as Jupiter, but its rings are physically twice as wide as Jupiter's disk, so the two effects cancel, and Saturn appears as large as Jupiter. This year the north pole of Saturn is tilted towards us. With enough aperture and magnification, you can see the A (outer) ring and the B-ring, Cassini's Division between them. The C-ring is inside the B-ring and can be seen as it passes in front of the planet. Saturn's shadow can be seen when it casts its darkness on the rings as they pass behind it.

Saturn's disk only shows its clouds, like Venus and Jupiter. Still, you can see the "weather" on Saturn, including the North Polar hood and a thick band of clouds near the equator, both appearing darker than the overall butterscotch yellow hue of the planet.

The Saturnian moons are visible in relatively small scopes, but they are much fainter than the four bright moons of Jupiter. Titan is sixteen times fainter, and the rest are over a hundred times fainter. From farthest from Saturn inwards, they are Titan, Rhea, Tethys, Dione, and Enceladus.

Jupiter and Saturn begin and end August in retrograde motion, travelling east to west against the background stars. Jupiter moves faster than Saturn, both physically and as they appear against the background of stars. At the beginning of the month, Jupiter is 7.5° west of Saturn. Towards the end of the month, Jupiter is 8.3° away from Saturn. Jupiter continues in retrograde motion until about the third week of September. Saturn doesn't turn around until the first week of October. They both continue in prograde motion, moving west to east against the stars, until on December 21st a special event happens. More on that in the December sky report.

The Moon's phases during August are:

Full Moon – 3rd

Last Quarter – 11th

New Moon – 18th

First Quarter – 25th

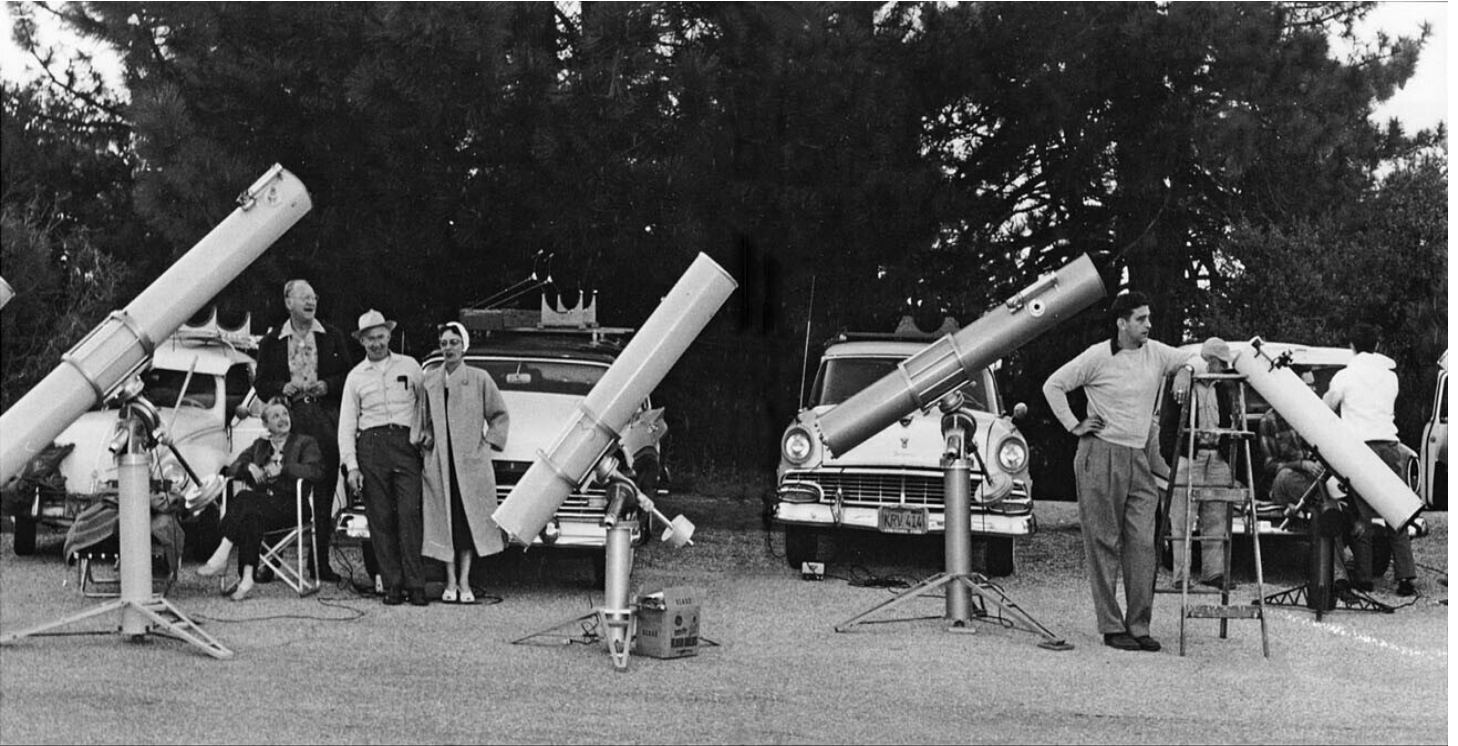
A Lunar-X event happens starting at 6:54pm PDT on Aug 25th. The event is visible in scopes with only 20x, although it is easier to see with more magnification of course. Lunar-X is an illusion caused by sunlight illuminating the rims of three separate craters. It looks like a white "X" shining the in the darkness of the unlighted portion of the Moon. It lies three-quarters of the way from the north end of the moon to the south end.

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.



From The LAAS Archive

By Lew Chilton, Club Historian



The Los Angeles Astronomical Society began holding star parties at Charlton Flats in August 1957. The star party pictured here occurred sometime later. All telescopes seen above, except for the Cave Astrola at far right, were made by member Bill Schaefer, with optics by the Cave Optical Company. Bill (wearing hat) and wife Imelda are seen standing in front of a '57 Ford. Others in the picture couldn't be identified. During this star party, Schaefer's long-focus telescopes were placed on the north side of the observing area so that the ecliptic would be well placed for planetary viewing. Note the telescope tube cradles mounted atop three of the automobiles, most notably the VW Bug at far left. Imagine the surprise of motorists seeing a small car carrying what looked like a large artillery piece on its roof!

(Image source: "Bill Schaefer, Twentieth Century Telescope Maker," by Larry Adkins, copyright 2010, Blurb Press.)

LAAS ARCHIVE

The Dumbbell Nebula - M27

By Spencer SooHoo



Since I haven't been going to my astronomy club's site in the Lockwood Valley during Dark Sky and Family Night events because of COVID-19 concerns, I've tried to make the best of living in Bortle 6-7 skies (scale of 1-9, 1=dark enough to see your shadow by the light of the Milky Way and 9 for an inner city where almost no stars are visible) by using a light pollution filter. I have to confess that since I can control my scope from desk, it's more comfortable imaging from my driveway than it would be at our Lockwood site. Anyways, here's an image of M27, the Dumbbell Nebula (also called the "Apple Core Nebula") taken through the light pollution filter. It's the results of 3 hours of images (60x180 seconds) and is probably the best image I've ever taken of the Dumbbell Nebula.

Photo Credit: Spencer SooHoo

Jupiter

By Michael Hayford



Jupiter as seen last night at Lockwood Valley. The Great Red Spot was prominent.

Photo Credit: Michael Hayford

Comet Neowise

By Gilbert Ventura



"I went up to a turnout on Highway 33, about 2 miles North of Rose Valley, with a Pentax k5, 55-300 zoom lens, set at 108mm. 150 seconds tracked by Pentax "Astrotracer" that approximates tracking. Set at f8 and ISO 1600. I viewed it with my spotting scope and 10/50 binoculars. Looked best in the binoculars."

Photo Credit: Gilbert Ventura

Comet Neowise

By John Fisanotti



Comet C/2020F3 (NEOWISE) on the morning of July 9, 2020, at 4:27 a.m., from near Mt. Wilson. This Photo was taken with a Nikon D850 camera and 300mm lens. Exposure was 4 seconds at f/4 and ISO 800. The camera was on a tracking mount. This image is cropped slightly from the full frame.

Copyright John Fisanotti



I was happy with the earlier close-up photo I took two mornings ago, from near Mt. Wilson. This time I wanted an image of the comet over the landscape with a wider angle lens. I decided to shot this at Joshua Tree National Park. This image was taken this morning, July 11 at 4:21 a.m.

The camera was a Nikon D850 and the lens was a 105mm f/1.4 Nikon. The exposure was 8 seconds at f/1.7 and ISO 1000.

Photo Credit: John Fisanotti

Comet Neowise - Shot In Thousand Oaks

By Brian Ginn



“Here is my shot from Thousand Oaks.”

Photo Credit: Brian Ginn

Comet Neowise - Lockwood Valley

By Michael Hayford



Comet NEOWISE from Lockwood Valley. Amazing what dark skies enable: a comet AND stars! Canon EOS RP with a 50mm prime lens, f/2.5, 10 sec at ISO 3200. 7/18/20 at 9:37pm.

Photo Credit: Michael Hayford

Comet Neowise In The Pre-Dawn Sky

By Nasir Jeevanjee



A bright comet in the pre dawn sky after a long time! Last time was seven years ago!

Almost naked eye but clearly visible with long tail in binocular!

Time around 4:40 - 5:10 AM

Imaged with Sony 250 mm iso 800 1 sec.

Photo Credit: Nasir Jeevanjee

Meet The New Members

Welcome to the LAAS!



Gabriel Carlson

Jonathan Landon

Ben Jakes

The Moriel Family

The Kennedy Family

Mark Bulandos

The Romley Family

LAAS Board Meetings

Our LAAS Board Meetings take place once a month at the Garvey Ranch Park Observatory. You can find the dates for these meetings on our event calendar. All members are welcome to attend all Board meetings. These meetings begin at 8 PM.—**Note: All meetings will be held virtually until the observatory re-opens.**

All current members may listen to recorded meetings by logging on to our website at LAAS.org and clicking on the “Members Only” tab to find the files. Contact Spencer at laassecretary@laas.org for further information

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.

Participating at one of our outreach events is another fine and fulfilling opportunity. This is YOUR club. Don't sit back and let other members do the work and have all the fun! Speak with a club officer and find out how you can volunteer and get more involved in the LAAS as a member. Currently, there are no volunteer opportunities available.

Time To Renew Your Membership?

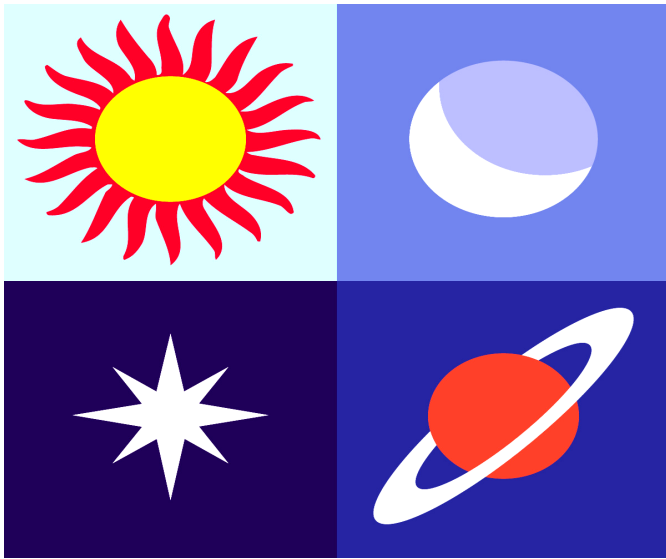
Please remember to renew your membership once you receive notice from the Club Secretary in your email inbox. Use this link to learn how to renew your membership:

<https://fs30.formsite.com/LAAS/MemberRenewal/index.html>

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



Almanac



August 3 - 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 15:59 UTC. This full moon was known by early Native American tribes as the Sturgeon Moon because the large sturgeon fish of the Great Lakes and other major lakes were more easily caught at this time of year. This moon has also been known as the Green Corn Moon and the Grain Moon.

August 11, 12 - Perseids Meteor Shower. The Perseids is one of the best meteor showers to observe, producing up to 60 meteors per hour at its peak. It is produced by comet Swift-Tuttle, which was discovered in 1862. The Perseids are famous for producing a large number of bright meteors. The shower runs annually from July 17 to August 24. It peaks this year on the night of the 11th and morning of the 12th. The second quarter moon will block out some of the fainter meteors this year, but the Perseids are so bright and numerous that it should still be a good show. Best viewing will be from a dark location after midnight. Meteors will radiate from the constellation Perseus, but can appear anywhere in the sky.

.August 13 - Venus at Greatest Western Elongation. The planet Venus reaches greatest western elongation of 45.8 degrees from the Sun. This is the best time to view Venus since it will be at its highest point above the horizon in the morning sky. Look for the bright planet in the eastern sky before sunrise.

August 19 - 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 02:42 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.

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



Additional Night Sky Observation Resources::

EarthSky.org: <https://earthsky.org/tonight>

Time and Date.com: <https://www.timeanddate.com/astronomy/night/>

Griffith Observatory: <http://www.griffithobservatory.org/sky/skyreport.html>

The Night Sky Planner: <https://nightsky.jpl.nasa.gov/planner.cfm>

Sky and Telescope: <https://skyandtelescope.org/observing/>

Astronomy Magazine: <https://astronomy.com/observing>

The Sky Live: <https://theskylive.com/guide>

August 2020

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8 Family Night
9	10	11	12	13	14	15 Dark Sky Night
16 General Meet- ing—Pending	17	18	19 Merit Badge 7PM -Online	20	21	22
23	24	25	26	27	28	29
30	31					

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

LAAS Club Swag

LAAS JACKETS, T-SHIRTS, AND CAPS

Share your club spirit with the public and wear your club colors to help identify you as a member of the LAAS today by ordering a new jacket, t-shirt or cap.

To order club swag, please use the following link:

<https://fs30.formsite.com/LAAS/Apparel/index.html>



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.



Club Contact Information

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hurst.alecia@gmail.com

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secretary@laas.org

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outreach@laas.org

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communications@laas.org

Mt. Wilson Coordinator: Darrell Dooley

mtwilsoncoordinator@laas.org

Bulletin Editor: Andee Sherwood

communications@laas.org

Club Contacts

Club Phone Numbers

LAAS Message Phone:

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



YouTube

twitter



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

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

**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

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