



# THE LOS ANGELES ASTRONOMICAL SOCIETY

JULY, 2023  
VOLUME 97, ISSUE 7

# THE BULLETIN



Mark your calendars! Save the date! The next public star party at the Griffith Observatory is scheduled for July 22, 2023 from 2 PM to 10 PM (PT).

Photo credit: Geovanni Somoza

**Garvey Nights** -The Garvey Ranch Park Observatory is open to the public every Wednesday night from 7:30 PM to 10 PM, weather permitting. Bring your telescopes or stop by to learn more about the LAAS .



## In This Issue

60 and 100 Inch Nights 2023 Schedule ..... Page 2

Dark Sky Night Report ..... Pages 3-4

GSSP Observing Report and Photos .....Pages 5-6

Find A Ball Of Stars.....Pages 7-9

Supernova In The Pinwheel Galaxy.....Page 9

Monthly Star Report ..... Page 10

Almanac ..... Page 11

Calendar of Events ..... Page 12

Meet the New Members .... Page 13

Outreach Volunteers..... Page 14

The LAAS Outreach & Club Swag ..... Page 15

Astronomy Magazines ..... Page 16

Club Contacts & Social Media Links ..... Page 17

## Update Your Contact Information

Please send any contact info changes to the club secretary at [secretary@laas.org](mailto:secretary@laas.org).

## Upcoming Club Events

Board Meeting,: July 5

General Meeting: July 10

Family Night: July 8

Dark Sky Night: July 15

Public Star Party: July 22

# Mt. Wilson Nights - Schedule For 2023

## 60 Inch and 100 Inch Nights

### 60 Inch Dates:

**(All on Saturday and all HALF-nights only.)**

July 8

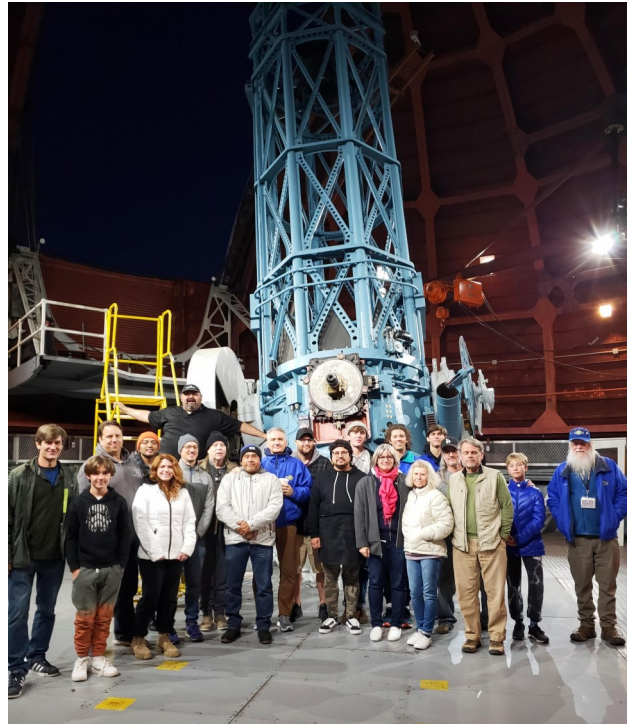
August 12

September 16

October 14

### 100 Inch Night:

September 9 - This is the final 100 Inch Night of the season. Please make your reservations soon.



### The Cost per person, per session:

60 Inch Night - \$65.00

100 Inch Night - \$145.00 (Booked/Waiting List only)

There will be 20 people, per session.

Learn more about these incredible events by visiting Mt. Wilson Observatory's website:

<https://www.mtwilson.edu/60-telescope/>

<https://www.mtwilson.edu/100-telescope-observing/>

### How to Make a Reservation?

Please contact Darrell Dooley **BEFORE** you pay for your reservation.

*Darrell is our Mt. Wilson Coordinator and the **ONLY** contact available.*

Darrell's Email Address:

[Mtwilsoncoordinator@laas.org](mailto:Mtwilsoncoordinator@laas.org)

*Darrell will answer all of your questions and concerns.*

# Dark Sky Night Report - June 17, 2023

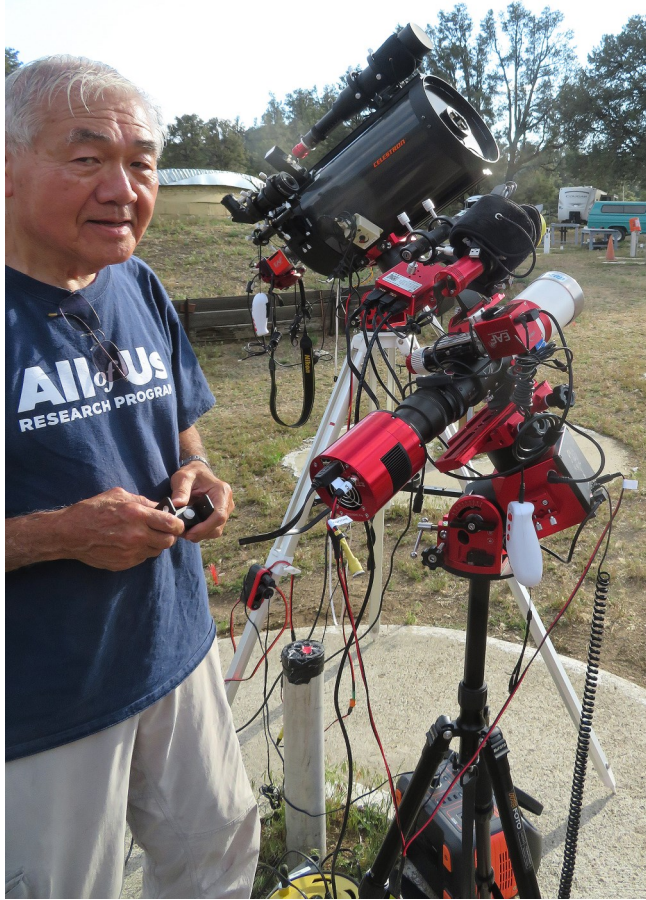
By Ray Blumhorst

LAAS's Dark Sky Night for June commenced Saturday evening at sunset in the Lockwood Valley with 23 members in attendance at the SKAS site for the balmy evening.

Venus was the first object visible in the night sky. At 22° altitude and 31 percent illumination, Venus shown brightly at -4.4 visual magnitude in the early evening sky.

M101, the Pinwheel galaxy, appeared to be the favorite target of the assemblage of astronomers of varying skill levels with many going for a glimpse of May's supernova remnant in M101. The Dobsonian pad was full of big Dob's like the 17 inch I looked through, but even more impressive to me was the image of M101 and the supernova remnant, captured, and shown on the screen of Tim's setup on the old Clyde shed pad. Wow, way to go Tim! I suspect other imagers and observers were having a wow evening also.





# GSSP 2023 Observing Report & Photos

## By Richard Sutherland

The Golden State Star Party was a great time this year. I last attended 11 years ago and it was more fun than I remembered! Along with (at least) fellow members Andy and Gil I got three solid nights of observing out of the four night event. The first night was definitely the best, with good (not great) transparency. Second night the transparency degraded a bit and the third night we got hit with some of the smoke from Canada, but it was still a nice sky! SQM ranged from 21.22 to 21.48 and temperatures dropped down to 42f!

I spent about 12 hours total observing over the three nights and logged 25 objects... but there was a great amount of enjoyable socializing mixed into each evening taking in the views through other scopes.





# Find A Ball of Stars

## By Linda Shore, Ed.D



This article is distributed by NASA's Night Sky Network (NSN). The NSN program supports astronomy clubs across the USA dedicated to astronomy outreach.

Visit [nightsky.jpl.nasa.gov](https://nightsky.jpl.nasa.gov) to find local

French astronomer Charles Messier cataloged over 100 fuzzy spots in the night sky in the 18<sup>th</sup> century while searching for comets – smudges that didn't move past the background stars so couldn't be comets. Too faint to be clearly seen using telescopes of the era, these objects were later identified as nebulae, distant galaxies, and star clusters as optics improved. Messier traveled the world to make his observations, assembling the descriptions and locations of all the objects he found in his *Catalog of Nebulae and Star Clusters*. *Messier's work was critical to astronomers who came after him who relied on his catalog to study these little mysteries in the night sky, and not mistake them for comets.*

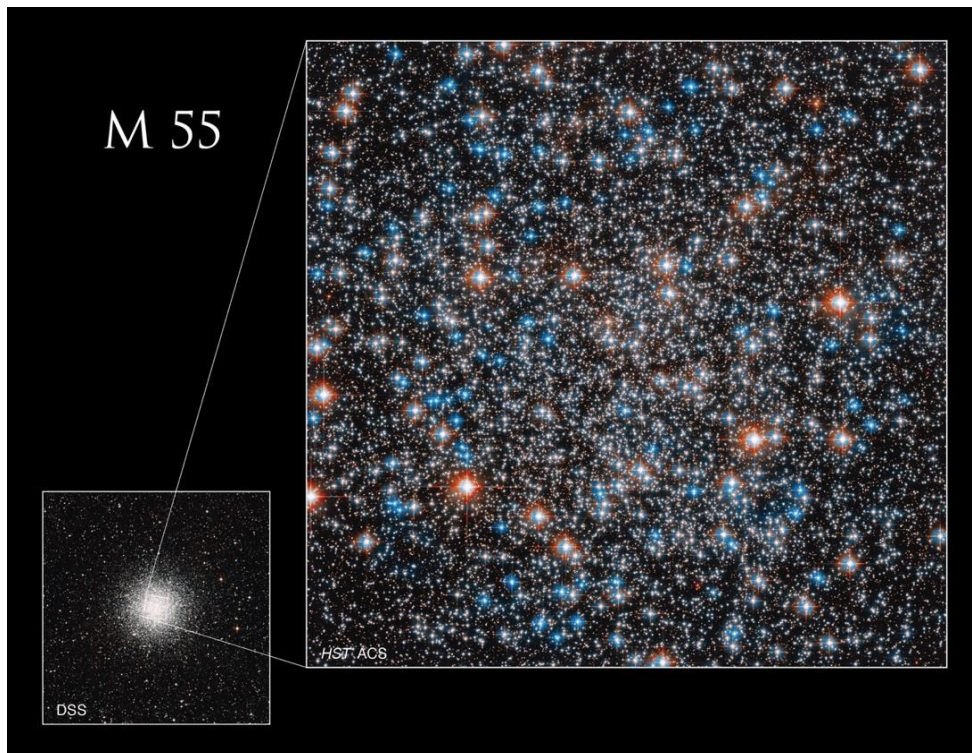
Most easily spotted from the Southern Hemisphere, this “faint fuzzy” was first cataloged by another French astronomer, Nicholas Louis de Lacaille in 1752 from Southern Africa. After searching many years in vain through the atmospheric haze and light pollution of Paris, Charles Messier finally added it to his catalog in July of 1778. Identified as **Messier 55 (M55)**, this large, diffuse object can be hard to distinguish unless it's well above the horizon and viewed far from city lights.

But July is great month for getting your own glimpse of M55 – especially if you live in the southern half of the US (or south of 39°N latitude). Also known as the “Summer Rose Star,” M55 will reach its highest point in northern hemisphere skies in mid-July. Looking towards the south with a pair of binoculars well after sunset, search for a dim (mag 6.3) cluster of stars below the handle of the “teapot” of the constellation Sagittarius. This loose collection of stars appears about 2/3 as large as the full Moon. A small telescope may resolve the individual stars, but M55 lacks the dense core of stars found in most globular clusters. With binoculars, let your eyes wander the “steam” coming from the teapot-shaped Sagittarius (actually the plane of the Milky Way Galaxy) to find many more nebulae and clusters.

As optics improved, this fuzzy patch was discovered to be a globular cluster of over 100,000 stars that formed more than 12 billion years ago, early in the history of the Universe. Located 20,000 light years from Earth, this ball of ancient stars has a diameter of 100 light years. Recently, NASA released a magnificent image of M55 from the Hubble Space Telescope, revealing just a small portion of the larger cluster. This is an image that Charles Messier could only dream of and would have marveled at! By observing high above the Earth's atmosphere, Hubble reveals stars inside the cluster impossible to resolve from ground-based telescopes. The spectacular colors in this image correspond to the surface temperatures of the stars; red stars being cooler than the white ones; white stars being cooler than the blue ones. These stars help us learn more about the early Universe. Discover even more: <https://www.nasa.gov/feature/goddard/2023/hubble-messier-55>

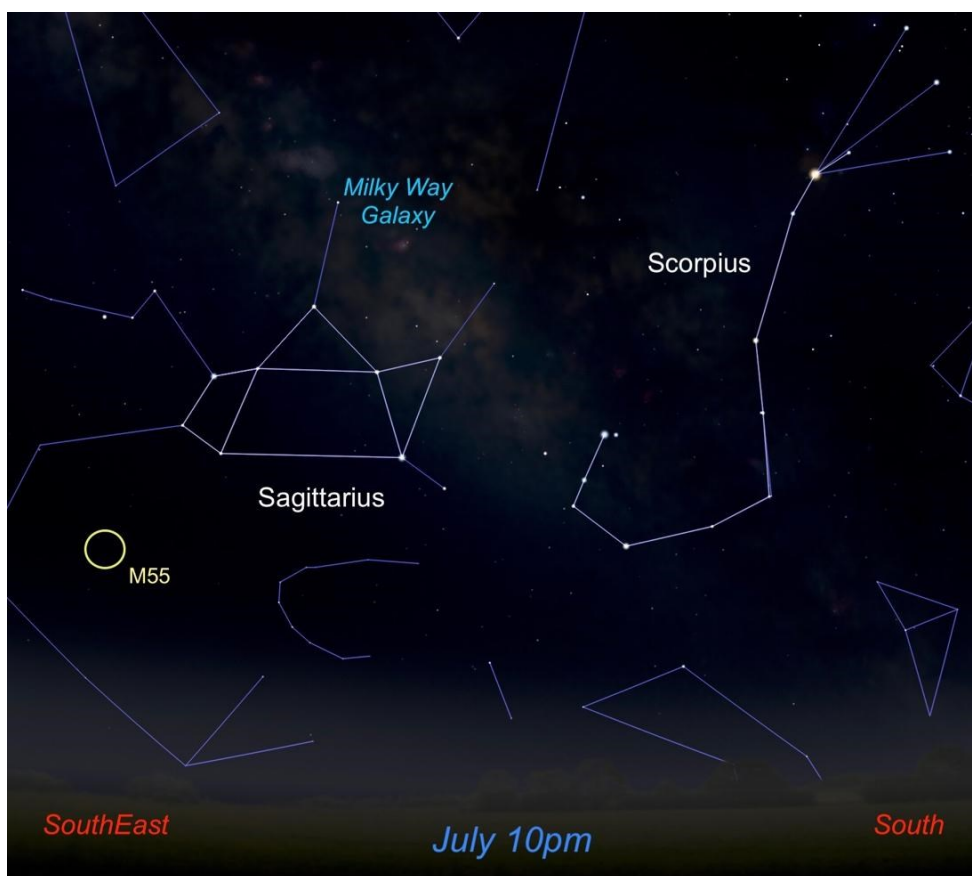
The Hubble Space Telescope has captured magnificent images of most of Messier's objects. Explore them all: <https://www.nasa.gov/content/goddard/hubble-s-messier-catalog/>

Continued on next page



The large image shows just the central portion of M55 taken by the Hubble Space Telescope. Above Earth's atmosphere, this magnificent view resolves many individual stars in this cluster. How many can you count through binoculars or a backyard telescope?

[Original Image](#) and Credits: NASA, ESA, A. Sarajedini (Florida Atlantic University), and M. Libralato (STScI, ESA, JWST); Smaller image: Digital Sky Survey; Image Processing: Gladys Kober



Look to the south in July and August to see the teapot asterism of Sagittarius. Below the handle you'll see a faint smudge of M55 through binoculars. More "faint fuzzies" can be found in the steam of the Milky Way, appearing to rise up from the kettle.

Image created with assistance from Stellarium: [stellarium.org](http://stellarium.org)



# Supernova In the Pinwheel Galaxy

By Tim Russ



“Grabbed the Super Nova in The Pinwheel Galaxy “

Photo Credit: Tim Russ

# Monthly Sky Report

## By Dave Nakamoto

The full moon is on the 3<sup>rd</sup>, last quarter is on the 9<sup>th</sup>, new moon is on the 17<sup>th</sup>, and first quarter is on the 25<sup>th</sup>. The days continue to get shorter and nights longer as we head towards the Autumnal Equinox in September.

**Mercury** is in the evening sky. On the 1<sup>st</sup>, it sets at 8:17 p.m., PDT, just 8 minutes after the sun sets, and so is unobservable. Mercury sets later and later each night and becomes easier to observe. By the 24<sup>th</sup>, Mercury sets due west and 15 degrees above the horizon, one hour and 13 minutes after the sun sets. It presents a small disk, so a magnification of around 200x will be needed to see it, a gibbous phase 62-percent illuminated and only seven arcseconds wide. **DO NOT** observe any planet when it comes close to the sun, for the danger to the eyes is great.

**Venus** is also in the west but higher than Mercury, one third of the way up from the horizon. The planet sets at 10:33 p.m., PDT, on the 1<sup>st</sup>, and at 8:27 p.m., PDT, on the 31<sup>st</sup>, so it will be visible in the evening hours this entire month. Its crescent shape grows thinner and its brightness increases each night. You'll need a magnification of 100x or more to see its disk. On the 1<sup>st</sup>, Venus is 3.5 degrees west of Mars. On the 16<sup>th</sup>, Venus is 3.5 degrees west of Regulus, the brightest star in Leo the Lion.

**Mars** is in Leo the Lion this month. Mars is in the west about a third of the way up from the horizon after sunset, higher than Venus. On the 1<sup>st</sup> the planet sets at 10:47 p.m., PDT, and at 9:38 p.m., PDT, on the 31<sup>st</sup>. Mars is a very small disk, only 4.2 arcseconds wide, too small to see its disk in any telescope until it next approaches the earth during the last few months of 2024.

**Jupiter** is in Aries the Ram, and rises in the east at 2:06 a.m., PDT, on the 1<sup>st</sup>, and rises at 12:21 a.m., PDT, on the 31<sup>st</sup>. On the morning of the 11<sup>th</sup>, Jupiter is four degrees east of the crescent moon. A small telescope with a magnification of 50x or more will show the four Galilean moons and the Red Spot.

**Saturn** is in Aquarius the Water Bearer and rises before Jupiter. On the 1<sup>st</sup>, the planet rises in the east-southeast at 11:17 p.m., PDT, and at 9:15 p.m., PDT, on the 31<sup>st</sup>. The rings and Saturn's largest moon Titan can be seen with a magnification of 50x or more.

**Uranus** is in Aries the Ram. On the 1<sup>st</sup>, Uranus rises in the east-northeast at 2:41 a.m., PDT. On the 31<sup>st</sup>, Uranus rises at 12:46 a.m., PDT. However, its small disk requires magnifications of 200x or more to see its diminutive disk. On the 15<sup>th</sup> Uranus is located at Right Ascension 3h 18m 23s and declination of +17° 56' 43". Happy hunting !

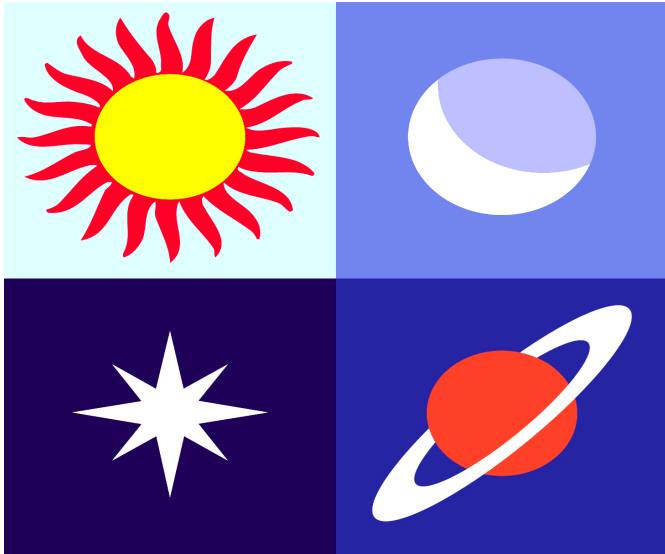
**Neptune** is in Pisces the Fishes. On the 1<sup>st</sup>, Neptune rises in the east at 12:13 a.m., PDT, and at 10:11 p.m., PDT, on the 31<sup>st</sup>. On the 15<sup>th</sup>, Neptune is at Right Ascension 23<sup>h</sup> 52<sup>m</sup> 5<sup>s</sup> and declination of -2° 12' 44". A magnification of over 200x is needed to see its diminutive disk. Happy hunting !

**The Southern delta Aquariid** meteor shower occurs from July 18 to August 21. The meteors will peak from the night of the 30<sup>th</sup> through to the morning of the 31<sup>st</sup>. Unfortunately, the moon is 95-percent full and will interfere with observations. The shower is best seen from the southern hemisphere, since the radiant, the point in the sky where they appear to originate, is in the southern constellation of Aquarius the Water Bearer, hence the name for the shower. From northern latitudes the radiant is located lower in the southern sky, and the rates are lower. This shower produces good rates for a week or so centered on the peak. Unfortunately, these are usually faint meteors that lack both persistent trains and fireballs. The parent object might be the comet 96P/Machholz.

**The alpha Capricornid meteor shower** occurs from July 7 to August 15 with a "plateau-like" maximum centered on the 31<sup>st</sup>. The peak will occur from the night of the 30<sup>th</sup> through to the morning of the 31<sup>st</sup>. Unfortunately, the moon is 95-percent full and will interfere with observations. This shower is not very strong and rarely produces more than five shower members per hour. The shower is notable, however, for the number of bright fireballs produced during its activity period. This shower is seen equally well on either side of the equator, although the shower appears to originate from the southern constellation of Capricornus the Sea Goat, hence its name. The parent object is the comet 169P/NEAT.

*David Nakamoto has been observing the heavens through various scopes since he was in the 5<sup>th</sup> grade. You can contact Dave by email at: [dinakamoto@hotmail.com](mailto:dinakamoto@hotmail.com).*





# Almanac

**July 1 - Conjunction of Venus and Mars.** The planets Venus and Mars will pass within 3 1/2 degrees of each other. The event will take place on the morning of July 1 at 2:48 AM (06:48 UTC). Both planets will be visible with the naked eye in the constellation Leo.

**July 3 - Full Moon, Supermoon.** 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 11:40 UTC. This full moon was known by early Native American tribes as the Buck Moon because the male buck deer would begin to grow their new antlers at this time of year. This moon has also been known as the Thunder Moon and the Hay Moon. This is also the first of four supermoons for 2023. The Moon will be near its closest approach to the Earth and may look slightly larger and brighter than usual.

**July 17 - 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 18:33 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.

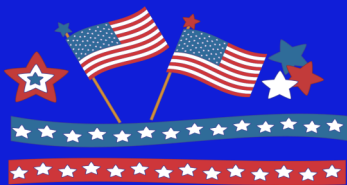
**July 29, 30 - Delta Aquarids Meteor Shower.** The Delta Aquarids is an average shower that can produce up to 20 meteors per hour at its peak. It is produced by debris left behind by comets Marsden and Kracht. The shower runs annually from July 12 to August 23. It peaks this year on the night of July 29 and morning of July 30. The nearly full moon will block most of the fainter meteors this year. But if you are patient, you may still be able to catch a few good ones. Best viewing will be from a dark location after midnight. Meteors will radiate from the constellation Aquarius, but can appear anywhere in the sky.

**Source:**

<http://www.seasky.org/astronomy/astronomy-calendar-2023.html>

**Additional Resources:**

[July 2023 – Events and Planet Finder Charts](#)



# July 2023

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4 Happy 4th! 	5 Garvey Night Board Mtng	6	7	8 Family Night 60 Inch Night
9	10 General Mtng	11	12 Garvey Night	13	14	15 Dark Sky Night
16	17	18	19 Garvey Night	20	21	22 Public Star Party
23	24	25	26 Garvey Night	27	28	29
30	31					

# Meet The New Members

## Welcome to the LAAS!



Joey Aguilera	Juliet Goff	Madison Kurihara
Ajiri Akpolo	Kenneth Ferreyro	JR Orci
Edwin Alexander	William Andersen	Jennifer Roberson
Eric Brotman	Tamar Molina	Victor Romano
George Elder	Susana Guerra	Angel Zamarippa
Markel English	Arash Nookei	

## 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](mailto: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.

Volunteers are always welcome 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.

Please send any articles, images, or artwork to the newsletter editor here: [communications@laas.org](mailto:communications@laas.org)

## Time To Renew Your Membership?

Please remember to renew your membership after you receive a notice from the Club Secretary.

Please send any new contact information to the club secretary at [secretary@LAAS.org](mailto:secretary@LAAS.org) OR login to your account here: <https://common.wildapricot.com/login>



# Outreach Team Volunteers

***“We are dedicated to advancing the knowledge of astronomy, optics, telescope making, and the wonders of our universe.”***



One of the ways the LAAS advances the knowledge of astronomy and the wonders of our universe is to visit local schools in our area with telescopes. The telescope operators are current members of the club. Many schools invite us to their campus to provide views of the objects in the night sky for not only the children but for the staff and parents, too. Some schools invite us on scheduled “Science Nights” while other schools plan a special evening of astronomy education on their campus. Other activities may be planned by the school during the event while our members are stationed in one specific location with telescopes to share with students and other school guests. These special members are part of our Outreach Team.

Our Outreach Coordinator is Heven Renteria. He and the others on his team have been attending outreach events on campuses throughout Los Angeles county and beyond.. Many of them travel great distances (and after a full day of work) to share astronomy with children and the public. The LAAS is also invited to attend special community events or events at state or city parks, libraries, and other venues. Recently, the club could not accept additional requests for outreach events because the team’s schedule was full.

The LAAS needs more members to join the outreach team. Some of these events may be local to you. Outreach members are greatly appreciated by the school administrators and students at every event.

You don’t need to be an expert using a telescope as the members of the team will help you set up and find objects in the sky to share with the students. You can attend an outreach event without a telescope and help the team with their telescopes or help with the long lines of children who are excited to look through a telescope for the first time.

These events are fun and rewarding in many ways. The enthusiasm shared by the children is infectious, in the best way possible. If you enjoy attending Public Star parties at the Griffith Observatory, you will enjoy a school outreach event.

The Outreach Team really needs your support and participation.

Please contact Heven at [outreach@laas.org](mailto:outreach@laas.org) to learn more.

Thank you for volunteering!

Andee Sherwood  
Communications



*John O’Bryan shows a student the Sun at Overland Elementary, 2021.*

*Photo credit: Van Webster*

## 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](mailto:Outreach@LAAS.org) for more information.



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

[Outreach Request Form](#)

## LAAS Club Merchandise

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

To find new merchandise from our store, please use the following link: [Shop Here](#)

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.



LAAS Hoodie



**Donate**



**Disclaimer:** The Los Angeles Astronomical Society, Inc. is a public charity, as defined by Internal Revenue Code Section 501(c)(3) and all contributions to the Society are deductible for Federal and State Income tax purposes.

John O'Bryan, Jr.

Treasurer

# Astronomy Magazines

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.



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



Subscribe or renew to the McDonald Observatory's StarDate Magazine and receive a special discount. Follow this link to subscribe and press "Add to Cart" under the type of subscription option: <http://stardate.org/store/subscribe>

On the Checkout form, enter "network" in the Coupon Code box.



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.

Use [this link](#) to begin the subscription process.



[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 [Mercury Magazine](#), published quarterly.



## Club Contact Information

President: Darrell Dooley

[President@laas.org](mailto:President@laas.org)

Vice President: Alecia Hurst

[hurst.alecia@gmail.com](mailto:hurst.alecia@gmail.com)

Treasurer: John O'Bryan, Jr.

[treasurer@laas.org](mailto:treasurer@laas.org)

Secretary: Spencer Soohoo

[secretary@laas.org](mailto:secretary@laas.org)

Outreach Coordinator: Heven Renteria

[outreach@laas.org](mailto:outreach@laas.org)

Club Communications: Andee Sherwood

[communications@laas.org](mailto:communications@laas.org)

Mt. Wilson Coordinator: Darrell Dooley

[mtwilsoncoordinator@laas.org](mailto:mtwilsoncoordinator@laas.org)

Bulletin Editor: Andee Sherwood

[communications@laas.org](mailto:communications@laas.org)

Club Historian—Lew Chilton

[trainfans2@sbcglobal.net](mailto:trainfans2@sbcglobal.net)



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

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

## Club Contacts

### Club Phone Numbers

LAAS Message Phone:

213- 673-7355 (Checked daily)

Griffith Observatory:

213-473-0800

Sky Report:

213-473-0880



Follow us on social media by clicking on one of the icons below:



Instagram



YouTube

twitter

Donate

