



THE LOS ANGELES ASTRONOMICAL SOCIETY

SEPTEMBER, 2019
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THE BULLETIN



The Little Rosette Nebula - Brian Paczkowski

The Little Rosette Nebula (Sh2-170) in the constellation of Cassiopeia. This is an emission nebula located about 7500 light years from Earth and has a similar look, albeit smaller and with less structure to the Rosette Nebula in Monoceros. This is a narrowband (H-alpha, OIII, SII) and RGB composite made from a combined 25 hours of narrowband data (10 min subs) and 4 hours of RGB data (5 min subs) taken over the last couple of weeks. The narrowband data was collected light polluted backyard and the RGB data was collected at Lockwood. Pre-processed in Nebulosity and processed in PixInsight. (AGOptical 10"iDK, 10Micron GM2000 HPS II mount, ZWO ASI 1600mm-cool at -25C)

Join the Los Angeles Astronomical Society - To find our membership application and further information, please visit our website at LAAS.org.

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Family Night at Lockwood

Sept. 21, 2019 at our Lockwood facility.

New Contact Info?

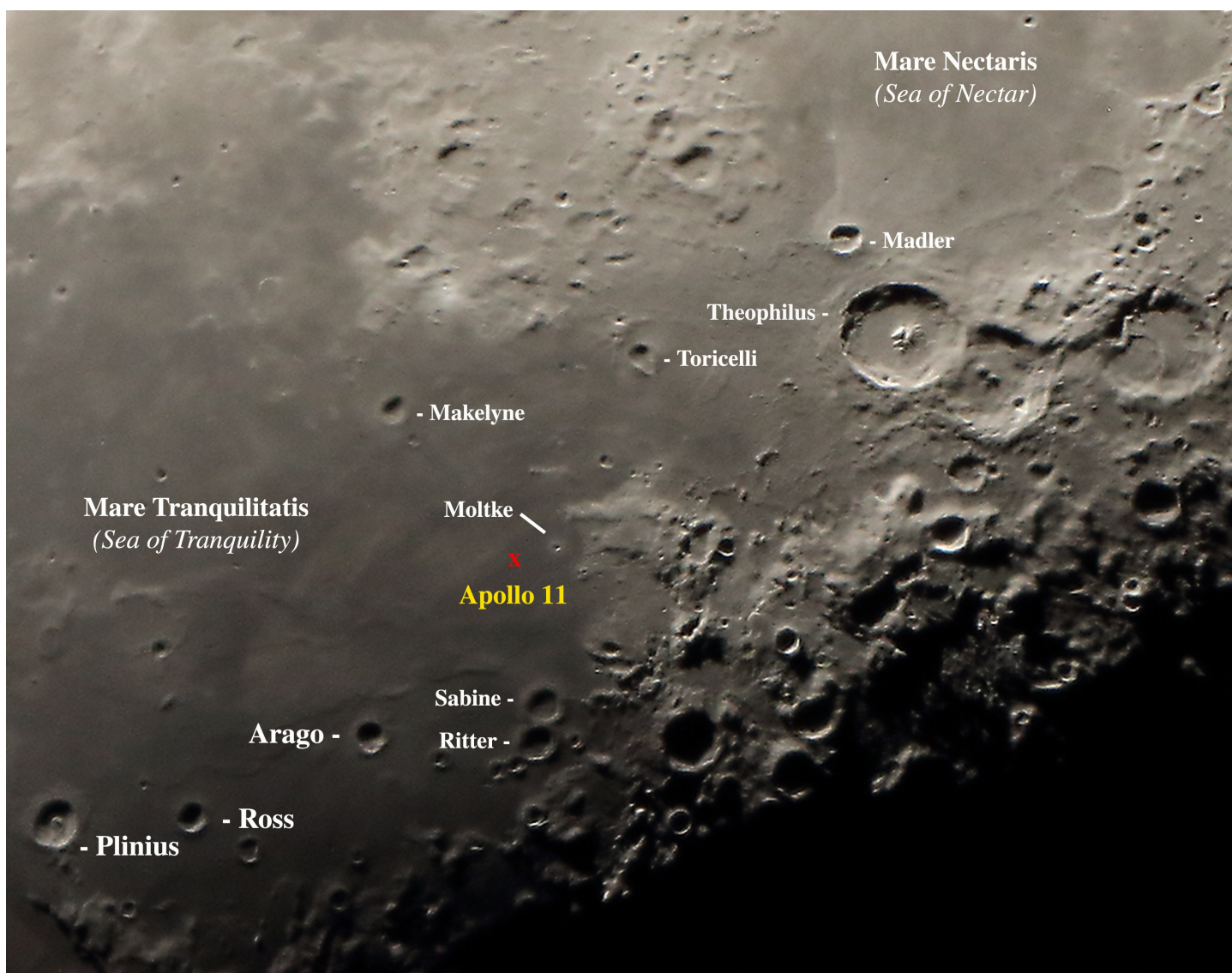
If you have recently moved, changed your email address or phone number, please contact our club secretary at secretary@laas.org.

Lunar Crater Depth vs. Diameter

Can a lunar crater's depth contribute more to its visibility than its diameter?

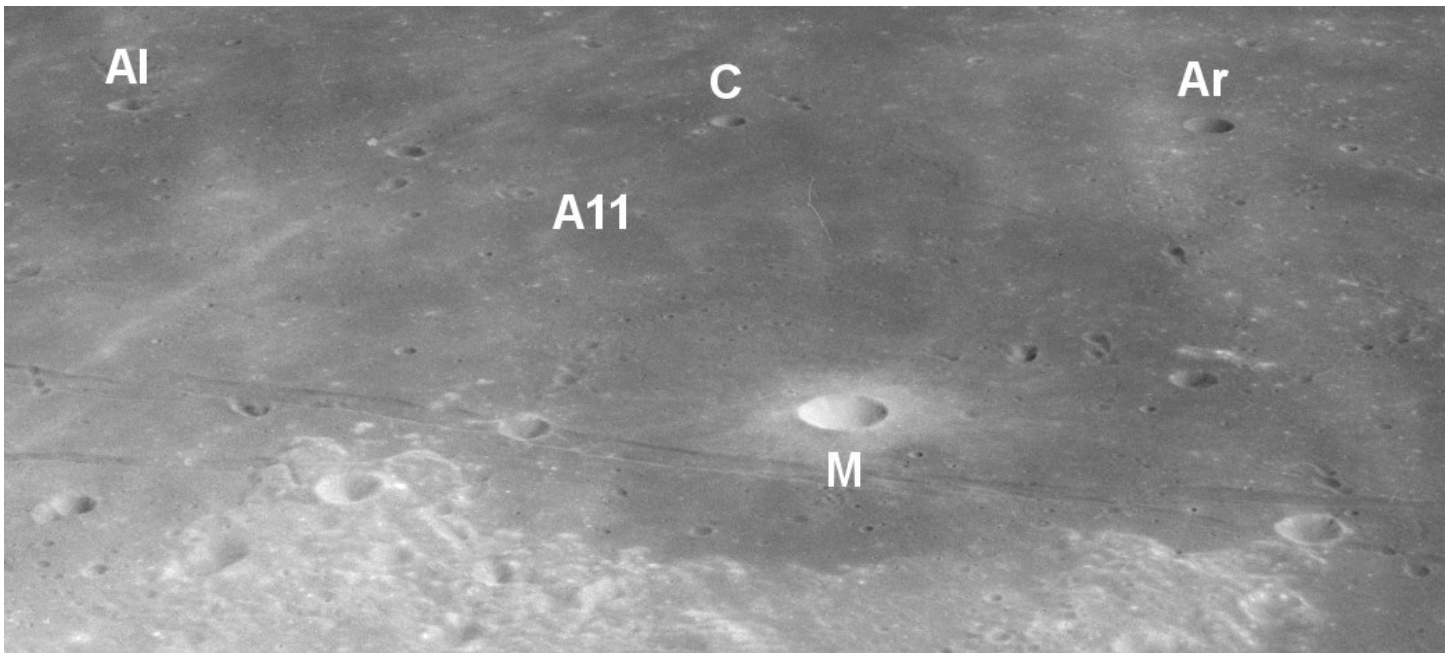
By Ray Blumhorst

Recently, I communicated with LAAS friend (Ed Dempsey) about Apollo 11 landing site landmarks and their visibility. I was puzzled by how the crater Moltke at 4 miles diameter was small but visible in my image, while the crater Armstrong at 2.9 miles diameter was undetectable. The even smaller diameter craters, Aldrin and Collins, were likewise undetectable. Craters Armstrong, Aldrin, and Collins are named after the successful Apollo 11 crew.



Moltke crater is a landmark close to the Apollo 11 landing site, as are Ritter and Sabine craters.

Here's a NASA photo of the three craters (Armstrong, Aldrin, and Collins) next to Moltke crater:



James Stuby based on NASA image - Oblique Apollo 16 Mapping camera image rotated and cropped to show the vicinity of the Apollo 11 landing site.

[https://en.wikipedia.org/wiki/Armstrong_\(crater\)#/media/File:Apollo_11_site_annotated_AS16-M-1389.jpg](https://en.wikipedia.org/wiki/Armstrong_(crater)#/media/File:Apollo_11_site_annotated_AS16-M-1389.jpg)

The shallowness of the three craters (Armstrong, Aldrin, and Collins), appears to be a factor in their lack of visibility. Moltke at .81 miles depth appears to have kicked up much more light reflective anorthosite from its formative meteorite strike than the shallower Armstrong at .43 miles depth, Aldrin at .37 miles depth and Collins at .37 miles depth.

In a nutshell, albedo is the power to reflect light. The prevalence of highly reflective anorthosite that's in and around Moltke gives Moltke a high albedo. In contrast, the dark lava of Mare Tranquillitatis that's in and around Armstrong, Aldrin, and Collins has low albedo. According to Wikipedia, anorthosite may also exhibit an iridescence known as labradorescence on fresh surfaces. Wikipedia says this about the Moltke crater: *"It is a small, bowl-shaped crater surrounded by a bright halo of higher albedo material."*

For Lunar imagers who wish to image the small craters Armstrong Aldrin and Collins, knowing the specific challenges are one small step closer to mission success.

Report: Family Night - July 27, 2019

By Spencer SooHoo

This Family Night was well attended--I don't ever recall seeing so many attendees...I stopped counting when I reached 40 or so for the Sunset Talk, but others said they counted 52 attendees.

The food was plentiful, and a big thanks to Zoly and Kryszztina for bringing burgers, hot dogs, and a grill. And for those of us who had the midnight munchies, Zoly fired up the grill and treated us to more burgers and hot dogs. The weather very pleasant and I didn't have to put on



long pants and a light jacket until well after 1AM. In the darkness, you could hear the visual observers call out objects for people to look at...including the Ring Nebula, Andromeda, the Dumbell, double stars, and so on through the night. I'd estimate the crowd to be evenly split between visual observers and imagers. Most left around midnight or retired to their tents/RVs, but at least one die hard stayed up to photograph the moon as it cleared the mountains (sometime between 2:30 and 3AM).



Photo credit: Spencer SooHoo

More photos on the next page.



Outreach Report: Haramokngna American Indian Cultural Center - August 9, 2019

"You're making me want to go into astronomy, but I'm supposed to go into law enforcement," said one young man as he looked at M15 through LAAS Board Member Zoly Dobrovics' 12" Meade LX200 GPS telescope. "Why not do both," said Dobrovics, who then navigated to the Garnet Star Nebula.

About 15 young people, ages 14 to 20, mostly boys, were treated to a waxing gibbous moon during an August 9, 2019 LAAS outreach at the Haramokngna American Indian Cultural Center off Mt. Wilson Red Box Road and Angeles Crest Highway in Azusa.



(Left to right, bottom): Kristza' Dobrovics, Joe Phipps, Javier Colon. (Top): Elizabeth Wong, Attila Dobrovics.

This was the first time, LAAS had been invited by the "Summer of Engagement" camping program for under-privileged teens and young adults, many of whom were encountering a telescope for the first time, and seeing the night sky up close also for the first time.

The seeing, it was hazy off and on. But this didn't prevent participants from enjoying Saturn, Jupiter and the Galilean moons.

LAAS Outreach Coordinator Heven Renteria set up binoculars on his Monster Parallelogram tripod, and set his sights on the moon. With his green laser, he also pointed out with the Summer Triangle, Antares, as well as the Big Dipper and the Little Dipper asterisms.

LAAS Volunteer Javier Colon set up his Takahashi Dall-Kirkham telescope, also trained on the moon. While I showed up with my eight-inch Zhumell Dobsonian, and taught the young men how to use a Celestron zoom lens, and to use a Tel-Rad finder. "Oh it's like a sniper scope," said one boy, who instantly grasped how to find Saturn with it. Earlier in the evening, the two visible planets were in conjunction with the moon.

Other celestial objects observed -- the Ring Nebula (very faint due to haze), Double star of Beta Cyngi

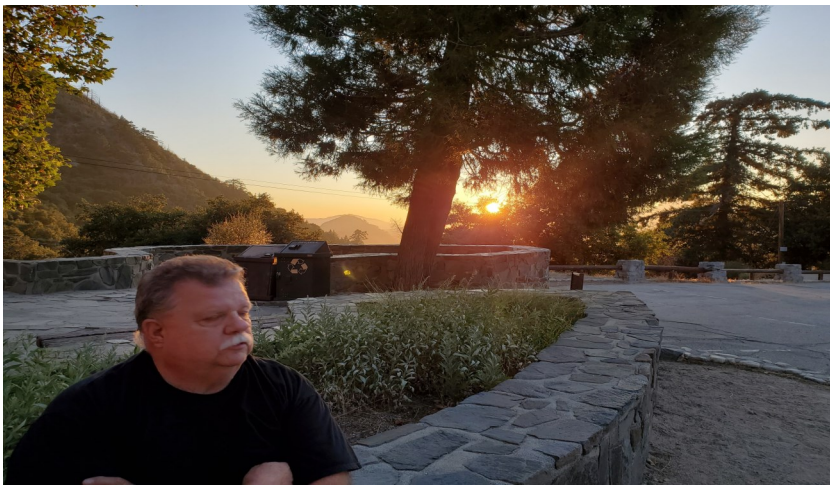
"Albireo" (golden yellow and sapphire blue colors were very distinct and clear), Mizar and Alcor in the Big Dipper (the separation was easily detected), Polaris (faint), and at least two meteors probably from the Perseids (because it's August!!). Other LAAS volunteers who helped make the evening fun were Attila Dobrovics, Kristza' Dobrovics, and Joe Phipps.

Photo credit: Elizabeth Wong

(More photos on the next page.)



Kriszta Dobrovics, Joe Phipps, Zoly Dobrovics. (Left to right background): Attila Dobrovics, and Javier Colon.



Joe Phipps sitting in a bench area of the Haramoknga Indian Cultural Center at sunset.



Javier Colon setting up his Takahashi in the dark, illuminated by his red-light headlamp.

LAAS President Speaks at Mt. Wilson Observatory's Lecture Series

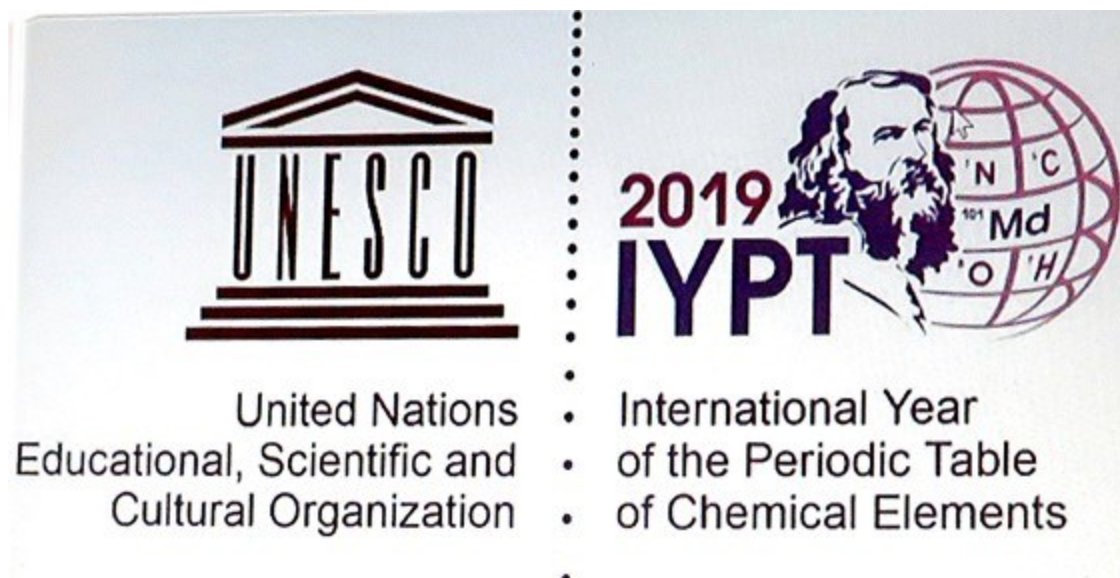
By Ray Blumhorst

A lecture, "Stellar Evolution and the origin of the Elements," was presented by LAAS President, Tim Thompson to a full house in the Mt. Wilson Observatory Auditorium on August 17.

"You can't speak about the origin of the elements and leave stellar evolution out of it," said Thompson.



Saturday's lecture was in honor of the 150th year of the Periodic Table of the Elements and was part of Mt. Wilson Observatory's "Talks and Telescopes" lecture series, running monthly until concluding the 2019 season Nov. 9. For more info on the lecture series go to: <https://www.mtwilson.edu/lectures/>



The "Periodic Table of the Elements" was started in 1869 by Dmitri Mendeleev and has been added to as more elements have been found.



During his lecture, Thompson explained where the elements come from that make up the matter in all existence – including in our very beings. The Big Bang, and all the stars that have subsequently evolved over time have formed the vast majority of the elements we see in the Periodic Table, and those elements are the building blocks for our lives, civilization, and beyond. “The universe evolves for two reasons,” said Thompson. “One of them is the expansion of space time, and the other one is the evolution of the stars.”

After the lecture, the audience was invited to take a look at our universe through the MWO’s historic 100-inch telescope. Inside the eyepiece, the two stars in the double star “Izar” twinkled in brilliant blue and gold next to each other.

Driving home through the mountains offered time for contemplation of all the information from the lecture and 100-inch telescope observation. In the rear-view mirror, reflecting our Sun’s light, a ninety five percent illuminated Moon rose over the San Gabriel Mountains and Mt. Wilson Observatory at 9:42 p.m., as three cars ascended the winding Angeles Crest Highway – heading east. The revelatory nature of the day seemed to have no end.



Make Your Telescope Easier To Use

by Tom Wallace

I've uploaded several YouTube videos to make life easier for amateur astronomers.

The first video shows showing how to easily set up a Meade Telescope Tripod to avoid problems threading the mounting bolt into the telescope base <https://www.youtube.com/watch?v=G-qqT0p5U4s&list=PLgHiYdbb2tMIKvRxv-TuZo6j8DcqmyGdQ&index=4>

The three videos in this playlist show how to build an inexpensive wooden dolly for moving a telescope mounted on a tripod from a garage or shed for observing. <https://www.youtube.com/watch?v=UmPbrOFqbgY&list=PLgHiYdbb2tMIKvRxv-TuZo6j8DcqmyGdQ>

Other astronomy videos are in this section of my youtube channel: https://www.youtube.com/user/tomstda/playlists?view=50&sort=dd&shelf_id=19



From the LAAS Archives

Low Chilton, Club Historian



Members of the Los Angeles Astronomical Society tour the Mt. Wilson Observatory, circa 1940. Several members are being shown a projected image of the Sun at the 60-ft. solar tower telescope. Clockwise from left are: (1) John McCornack, (2) Edison R. Hoge (Mt. Wilson solar observer), (3) Charles Ross, (4) Archie Newton, (5) David C. Jermann, (6) William H. Christie (Mt. Wilson astronomer), (7) unknown, (8) Ralph Dietz, (9) Jimmy Herron, (10) Avery Hildom, (11) George Herbig, (12) R. Leo Cotton, and (13) J. Foster Nelson.

(Image source: Los Angeles Astronomical Society)

LAAS ARCHIVE

Riverside Telescope Makers Conference (RTMC)

September 19-22, 2019



Whether you are a beginner or an advanced amateur astronomer, we welcome you to attend the RTMC Astronomy Expo just outside of Big Bear City

See the stars in the clear mountain sky at YMCA Camp Oakes

Learn of new developments in amateur telescope making

Check out the latest telescopes and equipment brought in by vendors for observers

Enjoy presentations covering observing, telescopes, and getting started in astronomy

Shop at the swap meet for astro-goodies on Saturday and Sunday

Socialize and observe with friends and fellow amateur astronomers

Learn more about RTMC by following this link to their official website: <http://rtmcastronomyexpo.org/>

Registration Information and form: <http://rtmcastronomyexpo.org/rtmc-expo-registration/>

For further information and contact list, please visit the following link: <http://rtmcastronomyexpo.org/contacts/>

The LAAS will have an information booth and volunteers will be needed. If you would like to help out for a few hours, please contact Tim Thompson at timthompson3@verizon.net

Family Night At Lockwood

September 21, 2019

Date: Saturday, September 21, 2019

Start Time: 5:00 PM

Location: Lockwood Valley

In 2011, "Family Nights " were scheduled at our Lockwood Dark Sky site best known as the Steve Kufeld Astronomical Site (SKAS).

Here is a link on our website to learn more about this special club facility:

<http://www.laas.org/joomlasite/index.php/dark-sky-observing>.

Family Nights are scheduled for all club members and families to enjoy a night of dark sky observation far from the city lights of Los Angeles. You may bring camping equipment or campers and stay for the entire evening. It's a star party and gives our members an opportunity to view celestial objects normally not visible in the sky over the city.

Due to extreme weather conditions, we only offer these nights to our members during warmer months.

Gates open at 5 PM and the departure times will be discussed with the group. Please arrive early before sunset to become familiar with the grounds and set up equipment. Some of our members enjoy setting up a potluck-style meal to share with all members. Please use the IO group to discuss more about this wonderful weekend of dark skies and club fellowship.



Family Night, 2017

Mt. Wilson Nights

2019 Session Schedule

Session Schedule:

60 Inch Nights Only

Friday, Sept. 27

Saturday, Oct. 26

Saturday, Nov. 23

The prices for these nights are as follows:

\$50 - 60 Inch Nights

All of the dates above have been posted on the club calendar. These are private events exclusive to current LAAS members, families, and their guests only.

Please click on the following link to contact Darrell Dooley, our Mt. Wilson Coordinator before submitting payment.

mtwilsoncoordinator@laas.org.

To pay using PayPal or by credit card, please use the following link:

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

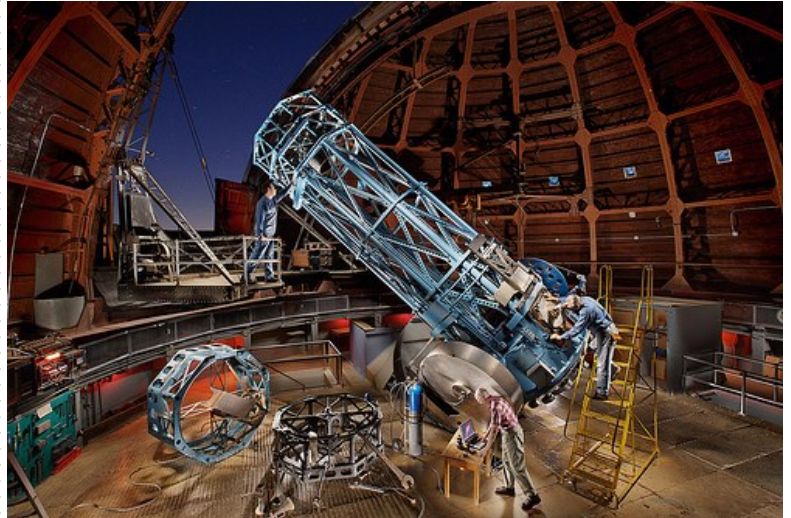
To pay by check, please mail your check to:

LAAS c/o Griffith Observatory

2800 E. Observatory Road

Los Angeles, CA. 90027

ATTN: Treasurer/Mt. Wilson



*Please write "60 Inch" on your check. Make your check payable to: LAAS

Note: If you pay by check, your check may be held by our Treasurer for several weeks, before clearing your bank.

Meet The New Members

Welcome to the LAAS!

Sean Corlin	Kevin Khachatryan and Family	Ivan Moreno	Claire Schwartz
Kevin Becker	Ezekiel Nacach	Jeffrey Hall	Manuel Zarate
Francine Ricks	Ritu Gupta and Family	Genie Hong	Robert Mocharia
Babak Saberi	Madison Gamboa and Family	Patrick and Charlotte Stadelmann	William Bubinski
Daniel Barton	Daniel Young	Matt Cunningham	Itichai Tiemsanjai

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.

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: webmaster@laas.org for your login credentials.

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.

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.



September Star Report

By Dave Nakamoto

Since June, evening starts earlier and earlier. Jupiter is setting fast in the southwest, and Saturn is as high as it gets in the south. Your typical Summer constellations are setting in the western half of the sky, while those of Autumn are rising in the east. On the 23rd is the autumnal equinox.

The Moon begins the month as a very thin crescent in the evening skies. It ends the month as a thin crescent in the morning skies.

The lunar phases are :

First Quarter – 6th

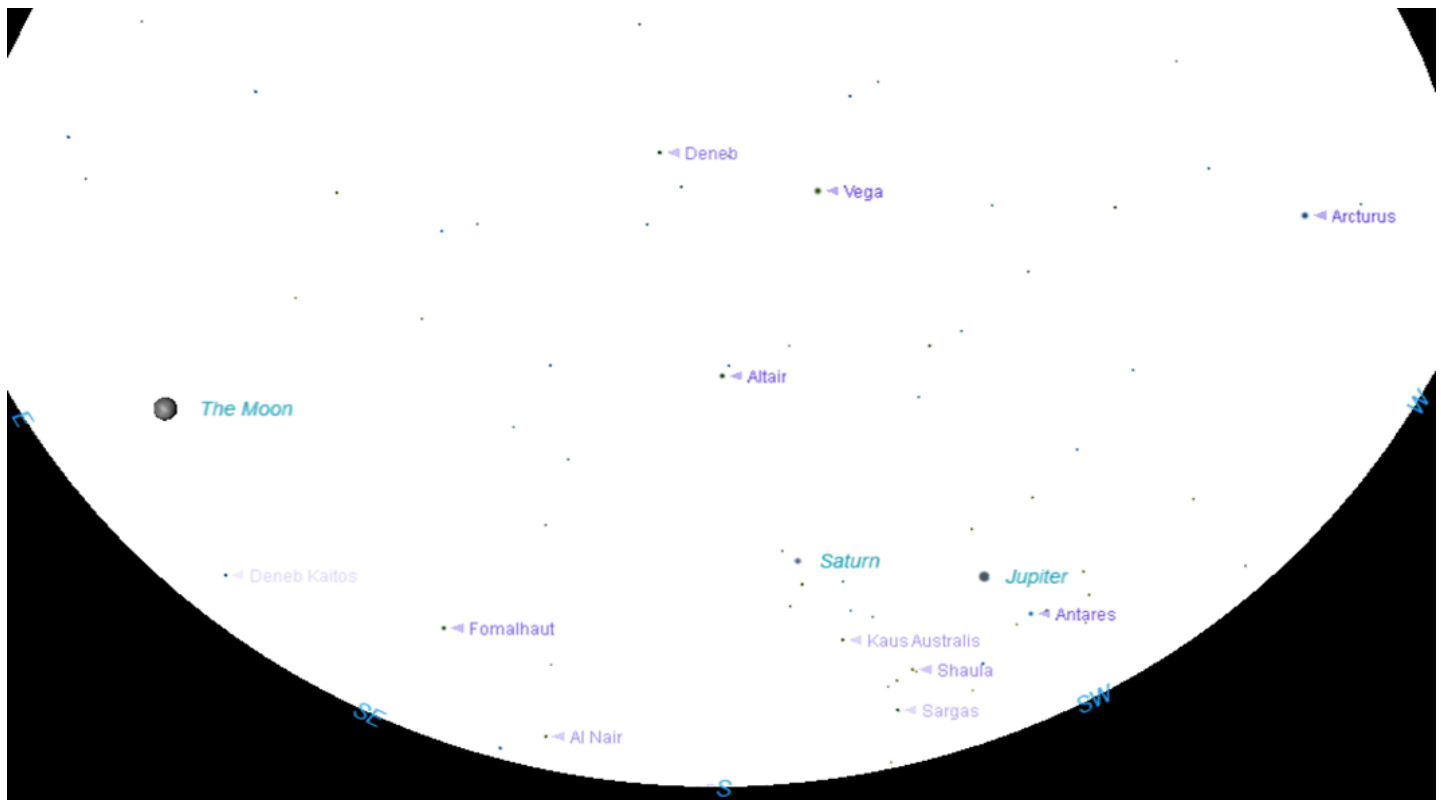
Full Moon – 14th

Last Quarter – 21st

New Moon – 28th

As we approach the autumnal equinox, nights get longer and days shorter. This is because the earth is past the summer solstice, when the earth's rotational axis is pointed as much towards the Sun as possible. That axis always points at the same position in the sky, towards Polaris the North Star, but as the earth revolves around the Sun, that axis alternatively tilts towards the Sun, then away from it, then back again in a 12 month cycle. Equinox is Latin, ancient Italian if you will, for equal (equi-) nights (-nox). On the 23rd of this year, days and nights are of equal length, 12 hours each, hence the name.

The chart below shows the sky around 9:00 PM in September



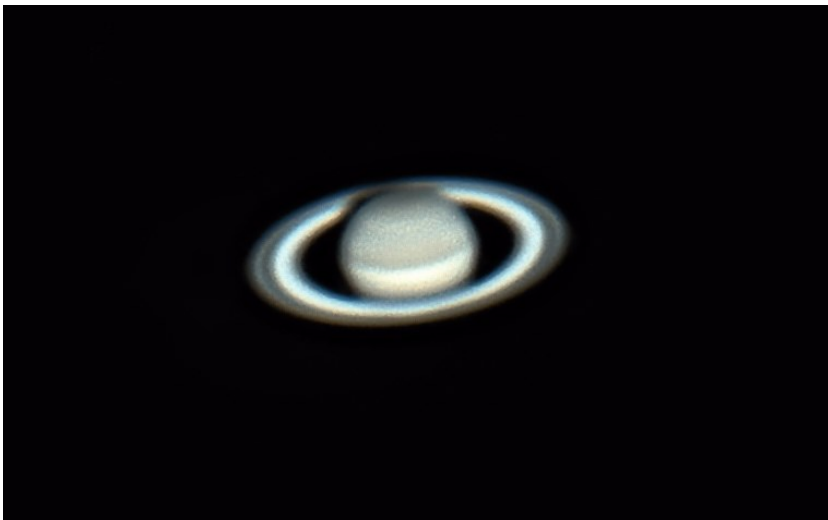
It's always hard to see constellations from urban locations, but 1st mag stars can be seen. Two of the brightest shine overhead, Vega and less brightly to the south, Altair. Science Fiction movie buffs will recognize the latter from "Forbidden Planet." Yes, that Altair. Deneb is fainter than the other two, but should be visible to the east

of Vega. These three stars form the Summer Triangle. Vega is within the constellation Lyra the Harp, Altair is in Aquila the Eagle, and Deneb is in Cygnus the Swan.

Jupiter is still putting on a show, but it's setting in the west as evening starts, so get your views of it while you can. Next month it'll pretty much be gone for the next 6 months from our evening skies. There are no significant Jovian moon events this month, because Jupiter can only be observed for a few hours each evening.

Saturn is as high as it will get as evening starts, so once again, get your views of it while you can. It's towards the south and should be the brightest star in that portion of the sky, although a quick comparison reveals it's a lot fainter than Jupiter.

Binoculars and low power telescopes will show that Saturn is definitely oval in shape, not round, but you'll need magnifications around 100x or more to see the rings distinctly. Despite being just about everyone's favorite planet, Saturn is small. With the rings it's about as large as Jupiter. Without, about half Jupiter's size, 45 times smaller than the Moon. The image below was taken on August 8th 2018 from the public star party held at Griffith Observatory using my 7-inch aperture 105 inch focal length Maksutov telescope with a Celestron NexImage video camera. The magnification is about 400x.



You might see the black line separating the inner from the outer rings, called Cassini's division after the Italian astronomer who first saw them clearly. Banding on the planet's disk can be seen. There's the shadow of the planet on the rings, seen on the rings where they pass behind Saturn. There's also the shadow of the rings on the planet, where the rings cross in front of Saturn's disk.

Even a small scope can see Saturn's brightest moon, Titan, as a faint star near the ringed planet, but the others will require more aperture (width) and magnification to make out. Unlike Jupiter, Saturn does not have any bright moons.

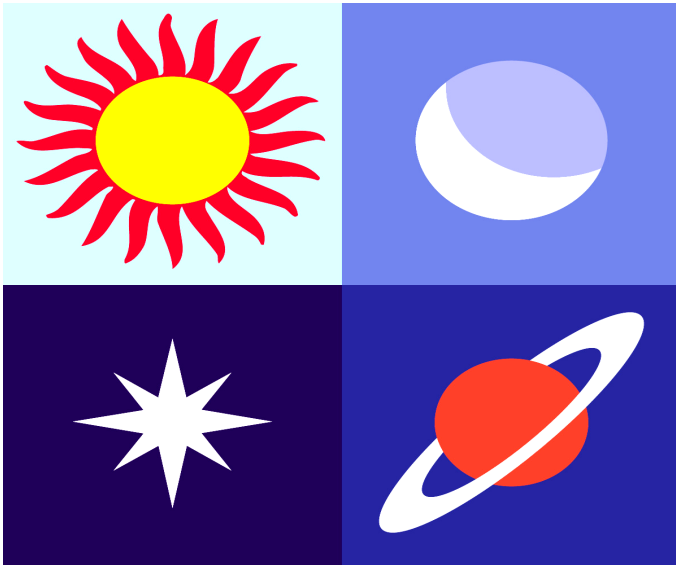
The Los Angeles Astronomical Society, also known as the LAAS, operates the Garvey Ranch Park observatory. The observatory is located just off the east parking lot. It's open to the public every Wednesday night from 7:00 PM to 10:00 PM. An 8-inch 9-foot long refracting telescope is available to look through, weather permitting. People often set up their own telescopes out on the lawn beside the observatory. There's a telescope making workshop on the ground floor, and LAAS members are ready to provide advice and knowledge on all things astronomical. Everything is free of charge. If you have any questions on equipment, observing, or just want a peek through a telescope, drop on by!



David Nakamoto has been observing the heavens through various scopes since he was in the 5th grade. He can be reached at

dinakamoto@hotmail.com.

Almanac



September 9 - Neptune at Opposition. The blue giant planet will be at its closest approach to Earth and its face will be fully illuminated by the Sun. It will be brighter than any other time of the year and will be visible all night long. This is the best time to view and photograph Neptune. Due to its extreme distance from Earth, it will only appear as a tiny blue dot in all but the most powerful telescopes.

September 14 - 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 04:34 UTC. This full moon was known by early Native American tribes as the Full Corn Moon because the corn is harvested around this time of year. This moon is also known as the Harvest Moon. The Harvest Moon is the full moon that occurs closest to the September equinox each year.

. Meteors will radiate from the constellation Perseus, but can appear anywhere in the sky.



Need Help With A New Telescope?

Visit the Garvey Ranch Observatory on any Wednesday night 7 PM to 10 PM for tips and assistance from your fellow LAAS members.

This is a free event for the public.

Learn more: [The Garvey Ranch Park Observatory](#)

September 23 - September Equinox. The September equinox occurs at 07:50 UTC. The Sun will shine directly on the equator and there will be nearly equal amounts of day and night throughout the world. This is also the first day of fall (autumnal equinox) in the Northern Hemisphere and the first day of spring (vernal equinox) in the Southern Hemisphere.

September 28 - 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 18:26 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/astromy/astromy-calendar-2019.html>

Mark your calendars for the **Riverside Telescope Makers Conference (RTMC)** coming up in September. The LAAS always has a presence at this event. Let us know if you want to help out at our booth this year.

Date: September 19-22, 2019

Visit the official website to learn more:

<http://rtmcastronomyexpo.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 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.

If you would like to purchase club jackets, T-shirts, or caps featuring our club logo, please look for Richard Roosman at the public star party and at our general meeting. Richard will have the club merchandise on sale from 2 PM to 6 PM at the star party.

For further information, feel free to contact Richard at Richardinwalnutpark@msn.com.

You can also use the link on Paypal, if you would like to place an order for club merchandise by using the following link:

<http://laas.org/joomlasite/index.php/laas-merchandise>



September 2019

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4 Garvey Nights Board Meeting	5 Outreach- Marina del Rey	6	7 Public Star Party
8	9 General Meeting	10	11 Garvey Nights Lockwood Meeting	12	13	14
15	16	17	18 Garvey Nights	19 RTMC	20 RTMC	21 RTMC Family Night
22 RTMC	23	24	25 Garvey Nights	26	27 60 Inch Night	28 Dark Sky Night Outreach-Chilao
29	30					

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 for a NEW Sky & Telescope subscription at the club discount rate.](#)

[Click here for online renewal of your Sky & Telescope magazine subscription](#)



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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timthompson3@verizon.net

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cbyrom484@yahoo.com

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treasurer@laas.org

Secretary: Spencer Soohoo

secretary@laas.org

Outreach Coordinator: Heven Renteria

outreach@laas.org

Youth Coordinator: James Rochford

jcrochford@gmail.com

Webmaster: Steve Dashiell

webmaster@laas.org

Club Communications: Andee Sherwood

communications@laas.org

Mt. Wilson Coordinator: Darrell Dooley

mtwilsoncoordinator@laas.org

Bulletin Editor: Andee Sherwood

communications@laas.org



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

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

**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
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