



# THE LOS ANGELES ASTRONOMICAL SOCIETY

## THE BULLETIN

JUNE, 2019

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© Brian Paczkowski

The Needle Galaxy (NGC 4565) in the constellation Coma Berenices. A great example of a galaxy viewed edge-on. This is a color composite made from a total of 10 hours of LRGB data taken this past weekend at Lockwood Valley. Stacked in Nebulosity and processed in PixInsight (AGOptical 10"iDK, 10Micron GM2000 HPS II mount, ZWO ASI 1600mm-cool at -25C)

Photo credit: Brian Paczkowski

Interested in joining the Los Angeles Astronomical Society?  
To find our membership application and further information,  
please visit our website at [LAAS.org](http://LAAS.org).

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**SAVE THE DATE - SUNDAY, JUNE 9, 2019**

**LAAS Open House, Swap Meet, and BBQ!**

More info coming soon!

### New Contact Info?

If you have recently moved, changed your email address or phone number, please contact our club secretary by sending an email to [secretary@laas.org](mailto:secretary@laas.org) with your new contact information.

# Thank You LAAS

## SpaceX - Martha Gil



Everyone here at SpaceX had a great time at Lockwood this past Saturday.

Thank you so much for allowing our group to take part in the Dark Sky party. It was chillier than expected and many of us weren't prepared for the cold but the stars and friendliness of everyone more than made up for it. 😊

Best Regards,

**Martha Gil** |

Process Planner - Avionics

# Family Night At Lockwood

## June 22, 2019

Date: Saturday, June 22, 2019

Start Time: 4:00 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 4 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.



This is the photo of the group at our first Family Night at Lockwood in June, 2011.

# Lockwood Contruaction Updates

By John O’Ryan Jr.

## Lockwood Committee Report

Over the last two years, the committee, led by Penny Kunitani and Kevin Gilchrist identified a number of items that needed maintenance or improvement at our Lockwood Valley site. After many meetings and discussions the projects were prioritized and we are beginning to make some progress. The highest priority projects are making the restroom accessible to members with handicaps and building a space to accommodate larger groups or families and larger Dobsonian telescopes.

### New Restroom:

After much debate, it was decided that the old restroom could not be made ADA compliant and should be replaced. There were a lot of suggestions, from using a shipping container to having a contractor build a complete new building. To save money, the final plan was to have Tuff Shed build the shell and then finish the interior ourselves. We selected a 10 ft. by 12 ft. Tuff Shed because that is the largest building that we can build without a building permit. As reported last month, club members poured concrete piers and framed the base for the shed from pressure treated lumber.



From the left: Al Germaine, Mike Ogle, Mike Hayford, Ernesto Velasquez, Don Sweetnam, Chris Sweetnam (Don's son) Darrell Dooley and Martin Mohan.

Photo credit: John O’Ryan, Jr.



The names for all are not in order

Back Row: John O'Bryan, Jr., Richard Plantenga, Al Germaine, Brian Paczkowski,

Sitting: Michael Hayford, Martin Mohan, Tristin Rose, Matthew Willmore, John Hester



The Dobsonian Runway!



Here is a picture of the finished slab with some dirt from the rain.  
Photo credit: John O'Bryan, Jr.

# Restroom Construction At Lockwood

Photo Credit: John O'Bbyan, Jr.





# A Star by Any Other Name: Origins Story of the Serpent Bearer

## By Lauren Korduner

I'm new to amateur astronomy. When I look to the night sky and see the stars and the hear names of constellations, I wonder, How did these stars get that name? Orphiuchus and Serpens are two constellations that, in the Northern Hemisphere, rise in summer. Orphiuchus is "the Serpent Bearer" and Serpens is, well, the serpent. But why "Orphiuchus"? Why "the Serpent Bearer"?

Constellation Orphiuchus was *not* the name of a Greek or Roman god. Aesculapius is the Greek demigod thought to have inspired the name. His father Apollo, god of light and prophecy, lay with Coronis, daughter of a mortal king, and they conceived a child. Apollo sent his white crow to watch over his beloved while he was doing whatever Greek gods did. Coronis desired a husband and married a mortal man. The crow came back to tell his master but by time the bird reached him, Apollo already knew. Some stories claim Apollo told his twin sister Artemis and she shot Coronis with a quiver of arrows. Other stories say Apollo himself murdered his beloved in a fit of jealousy. By all accounts, however, their son's life began on his mother's funeral pyre, when Apollo cut his unborn son from his mother's womb.

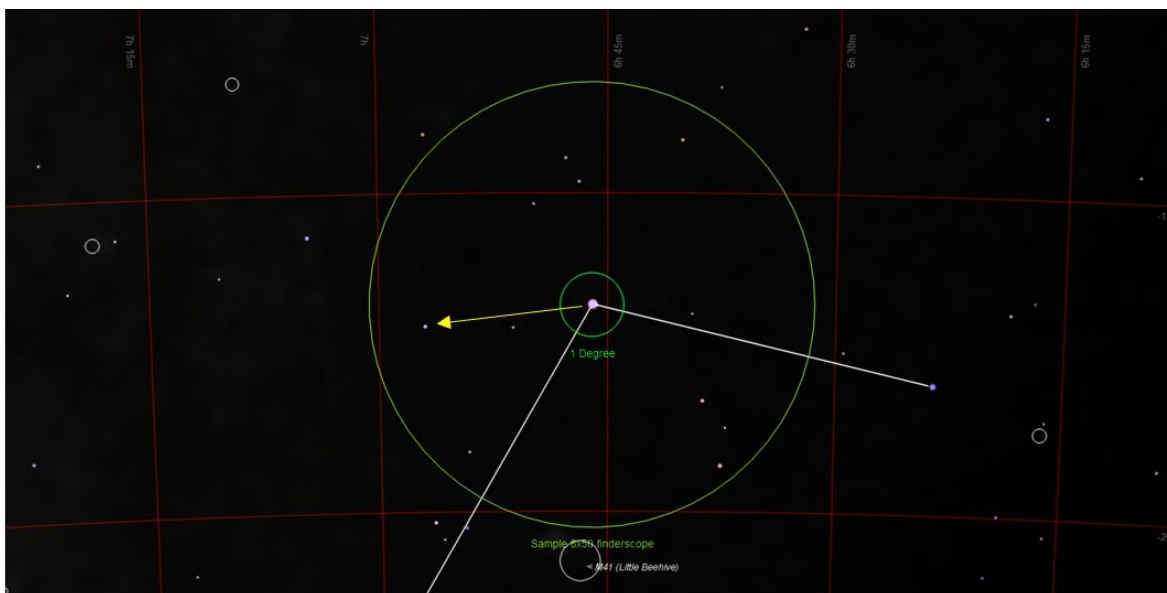
Aesculapius went to live with centaurs and learned medicine. He developed cures from serpent venom and, at some point, learned to bring the dead back to life. His talent drew the ire of Hades, god of the Underworld, who took his case to Zeus. Insulted and enraged, Hades urged Zeus to strike the demigod down. Zeus sent his eagle with a lightning bolt and Aesculapius. The gods paid tribute to Aesculapius and his medical achievements by placing him among the stars. He holds Serpens, the source of his cures.

The demigod's demise gave us not only the constellation but also the order of Greeks who practiced medicine. Aesculapius's serpent entwined with his staff remains a symbol for the medical profession today. Orphiuchus's alpha star is Rasalhague. The name means "the head of the serpent charmer" and is the uppermost star of the constellation. Rasalhague can be found south and east of Rasalgethi, alpha star of Hercules. The Orphiuchid meteor shower that began in May will continue through July. Best viewing time from Los Angeles will be after midnight on June 10, when the Orphiuchids peak. The radiant will appear 32 degrees above the southern horizon at midnight, according to [www.in-the-sky.org](http://www.in-the-sky.org). Enjoy the show!

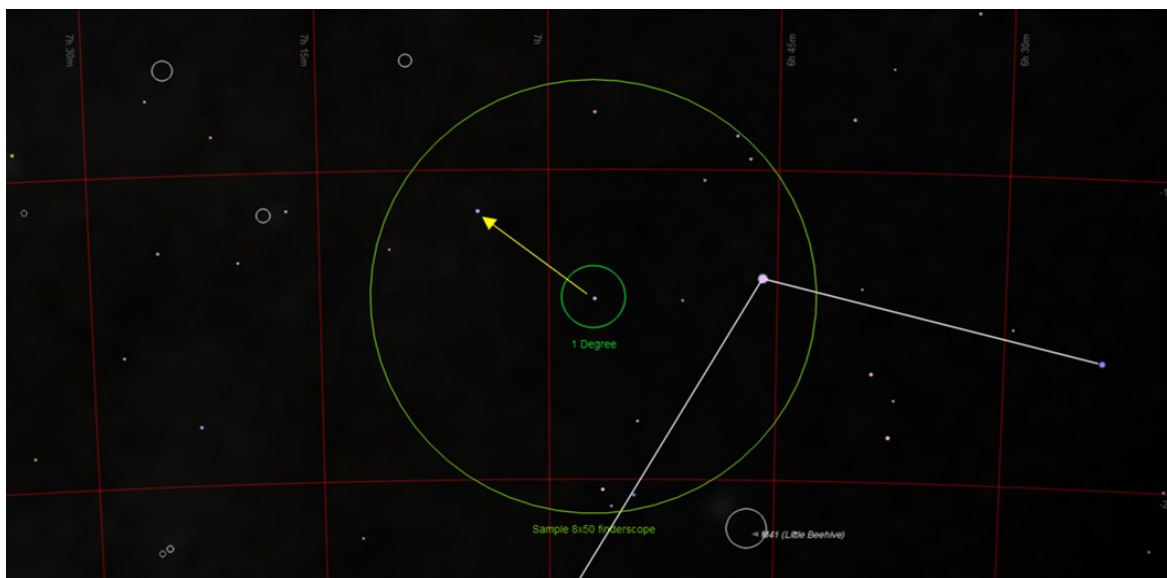
# A Star Hopping Tale

By Dave Nakamoto

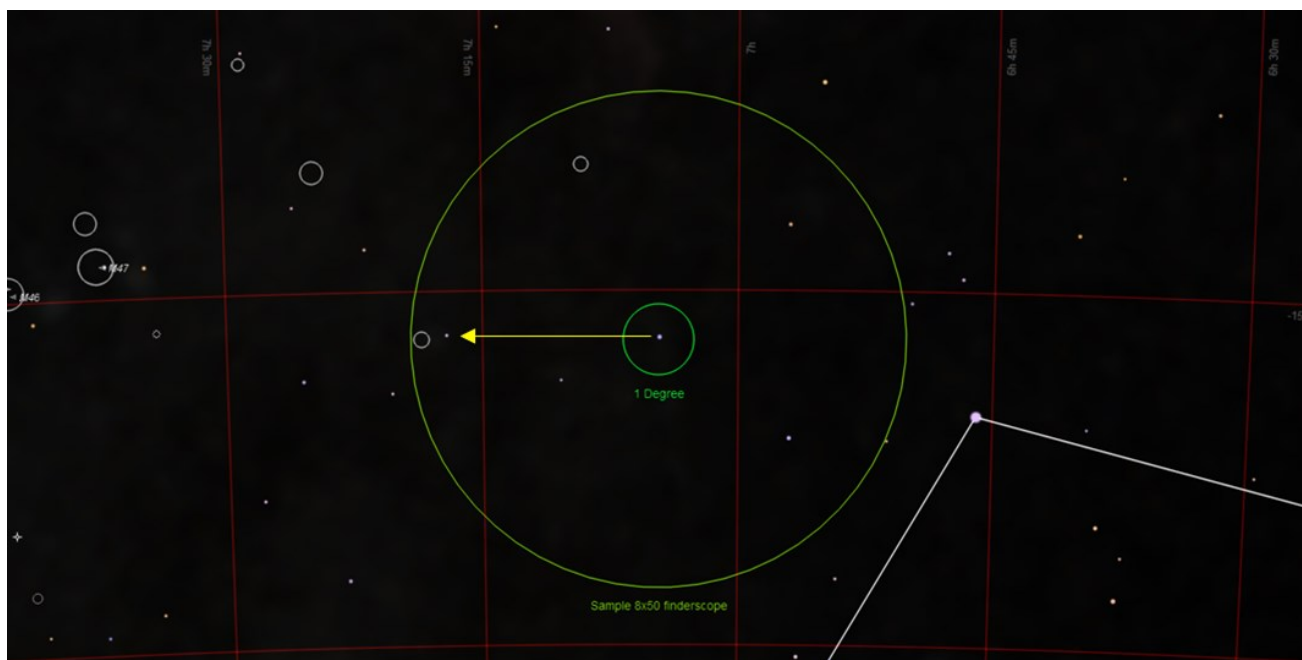
Last night (5/1/19) while hunting down M46, which I didn't get, my path took me east of Sirius. Using my trusty Star Atlas 2000.0 PAPER maps, my first hop was to a 4<sup>th</sup> mag star, very faint in the finder, near the edge of the field, and slightly south of Sirius.



Then east the same distance, to another 4<sup>th</sup> mag star north of directly east. I should mention that I should have checked these stars in the 8-inch scope, since you never can tell what delights might be right under your nose, and eyes.



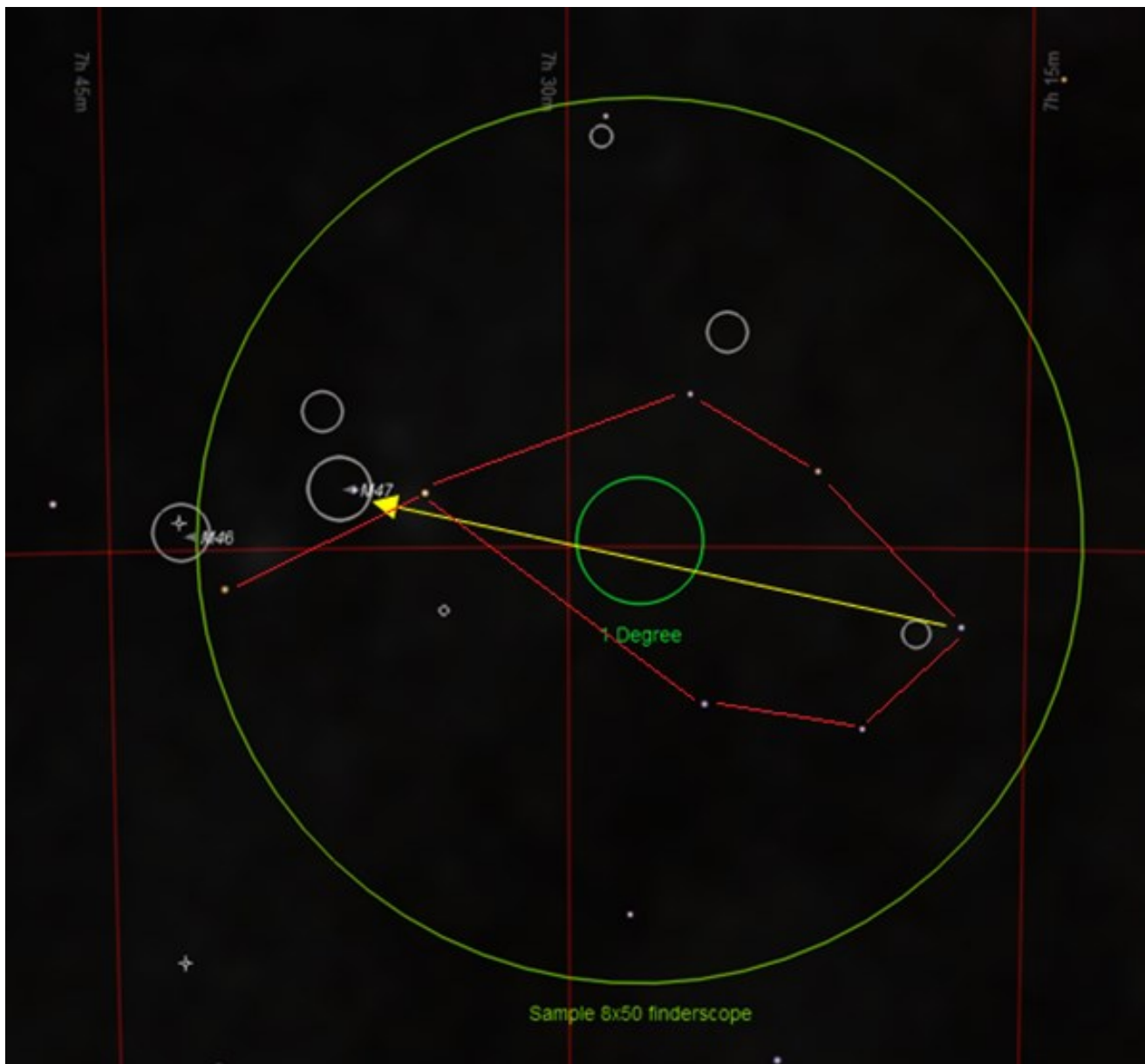
Then at the edge of the FOV, a 6<sup>th</sup> mag star.



But I noticed that circle, denoting an open cluster, so after centering on the 6<sup>th</sup> mag star, I used the 8-inch with a 50mm eyepiece, shoved the scope gently to the east a bit, and spied a very faint amorphous glow. I asked Vance to take an exposure of several seconds, and we saw the cluster !



For those that wish to journey on to M47, it's 4 degs to the east, at the end of the pattern of stars shown below, and one degree east of the end star.



To get to M46, there is another 6<sup>th</sup> mag star off the end of that pattern, then northeast from there 1 deg.

Notice that there are many other clusters in the area, a good opportunity to test your skills in star hopping and observing. Don't forget to check out the stars in the region using your main scope. You might be surprised at what you may uncover.



Want to learn from Dave? You can find other articles of interest here:

<http://www.laas.org/joomlasite/index.php/dave-nakamoto-articles/nakamoto-back->

# Outreach Report

## By Van Webster

### Breed Street Elementary

Date: [Friday April 26, 2019](#)

Time: 6:00 PM - 8:00 PM (SOLAR TELESCOPES)

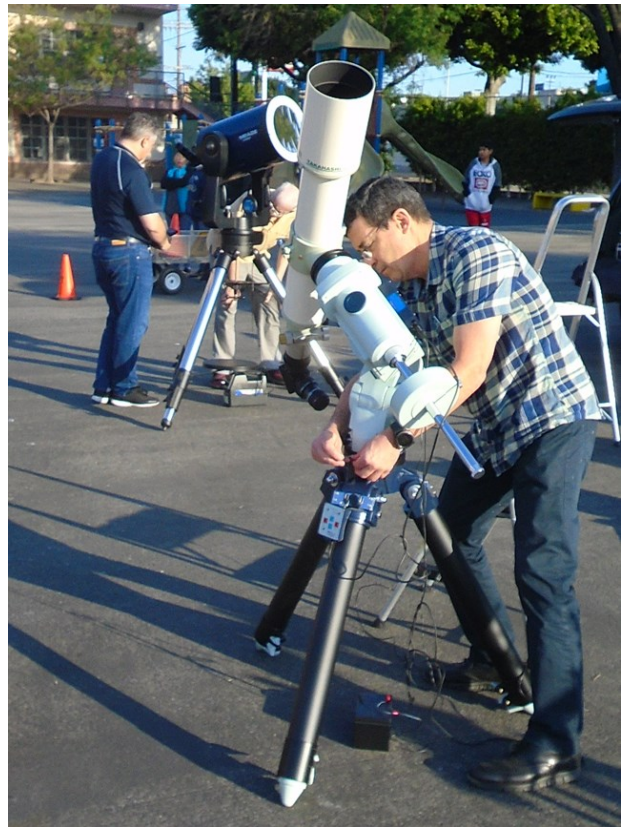
Members of the Los Angeles Astronomical Society traveled to the Boyle Heights area of Northeast Los Angeles on [Friday, April 26, 2019](#) for a late afternoon session of solar viewing. After some confusion between the astronomers and the school management about where the event would take place, and how we would enter the school property, we eventually set up on the south side playground.

The school was holding a STEM event with lots of activities for the students both outside and inside the school auditorium. Students were eager to look through the solar telescopes and began to line up as soon as they saw the equipment in place.

The Sun was quiet this Friday afternoon with no sunspots visible and little surface activity to be seen using the Ha filtered instruments. The school did a good job of setting up a perimeter around the telescopes so that there was little crowding around each tripod. The lines quickly grew in length as students and parents waited their turn at the eye-pieces.

Viewing was cut short by the decent of the Sun behind surrounding trees so the Sun was blocked by 7:165 PM. The astronomers were thanked for bringing out their telescopes and were offered a free hamburger dinner cooked by a professional catering service. All in all it was a fun afternoon.

Photo Credit: Van Webster/LAAS



# Mt. Wilson Nights

## 2019 Session Schedule

### Session Schedule:

#### 60 Inch Nights

Sunday, June 30  
 Friday, August 23  
 Friday, Sept. 27  
 Saturday, Oct. 26  
 Saturday, Nov. 23

#### 100 Inch Night

Saturday, June 1

The prices for these nights are as follows:

\$50 - 60 Inch Nights

\$170 - 100 Inch Night

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.

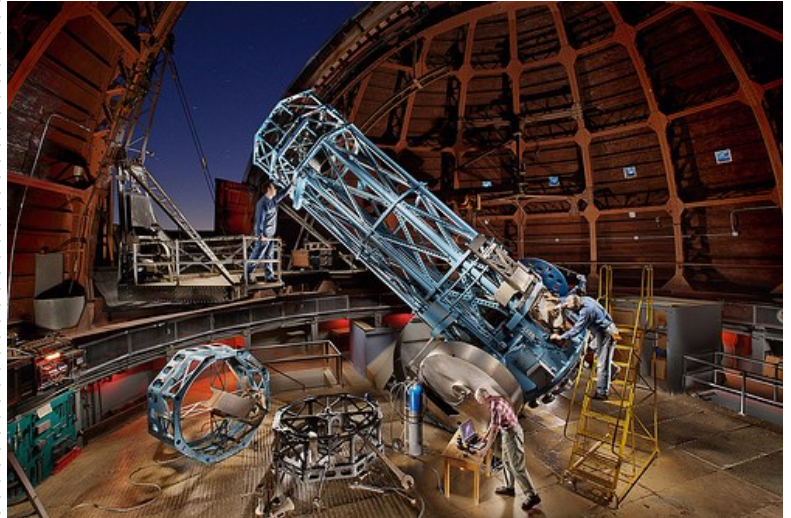
[mtwilsoncoordinator@laas.org](mailto:mtwilsoncoordinator@laas.org).

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



\*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



Jason Cirlin

Zev Gruman and Albert Genzen

Jin Kwon

April Ramos

Robert McDermott

Glenn Diekmann

Randel Mancilla

Susan Davis

Karin and Russell McElhatton

Thomas Dodge

Chip and Mary Ann Lynch

Kindred Baker

Yash Ganti

## 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](mailto: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](mailto:secretary@LAAS.org).



# June Star Report

## By Dave Nakamoto

This month on June 21<sup>st</sup> at 9:00AM is the Summer Solstice. "Solstice" means "Sun has stopped". No, this is not like what happened to Joshua. The sun during the year moves north after the Winter Solstice, and south after the Summer Solstice. The Solstices are where that northward or southward journey ends, with the Sun making a celestial U-turn and heading back the other way. It generally happens around the 21<sup>st</sup> or 22<sup>nd</sup> of December and June. The Summer Solstice is officially the start of Summer. It marks a bad time for astronomers in the northern hemisphere, as the Sun doesn't set until after 8PM, and this means it doesn't get dark until 9, meaning short nights for astronomers.

As for the planets, this is where they'll be for the middle of June:

Mars is gone until 2020, being too small to observe.

Jupiter rises around 8:00 PM. It's directly south around midnight. It's at opposition, which means it is opposite the Sun as viewed from earth. This means it'll be observable all night long. The markings on its disk, and motions of its four brightest and largest satellites are fascinating to observe through any telescope, but you'll need a magnification of 60x or more. Here are some dates and times when shadows appear on Jupiter's disk for June. I've limited the search for those events visible between 9pm and midnight.

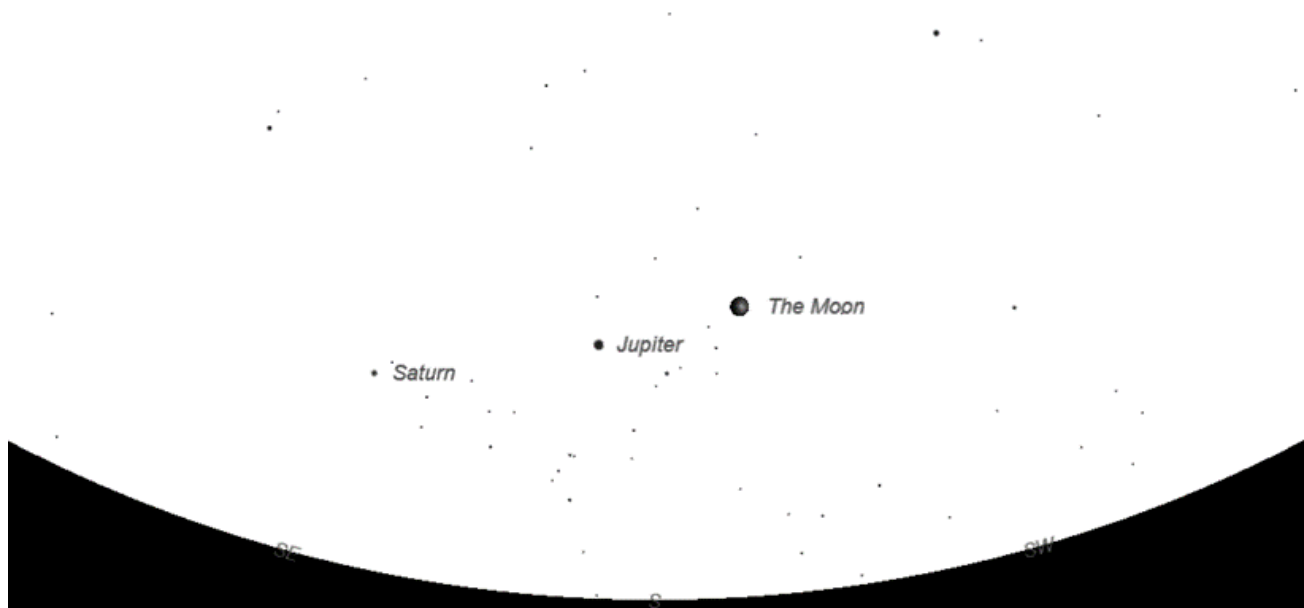
3<sup>rd</sup> : Io's shadow crosses Jupiter's disk from around 11pm to just past midnight.

11<sup>th</sup> : Ganymede's shadow crosses the disk from 9pm to 11am. This is the largest shadow any of the moons cast on Jupiter, and it takes nearly two hours to cross the disk. Ganymede will be right beside its shadow and may be visible.

18<sup>th</sup> : A double event. Io and its shadow crosses Jupiter's disk from 9pm to 11pm. Then from 12:30am to 2:30am, Ganymede's shadow does the same.

Saturn is next, rising around 10:00 PM, and it's directly south around 2:00 AM. Its rings are tilted magnificently for viewers with telescopes. See how many of its moons you can spot with a telescope.

The image below shows what the sky looks like at mid June around midnight. We're looking south.





Venus rises just before 5:00 AM low in the east-northeast, a small, nearly full disk, but its close location next to the Sun makes it a difficult and dangerous object to try and see, especially through a telescope, so wait a few months until it comes into the evening skies.

The lunar cycle is:

New Moon : 2<sup>nd</sup>

First quarter : 10<sup>th</sup>

Full Moon : 17<sup>th</sup>

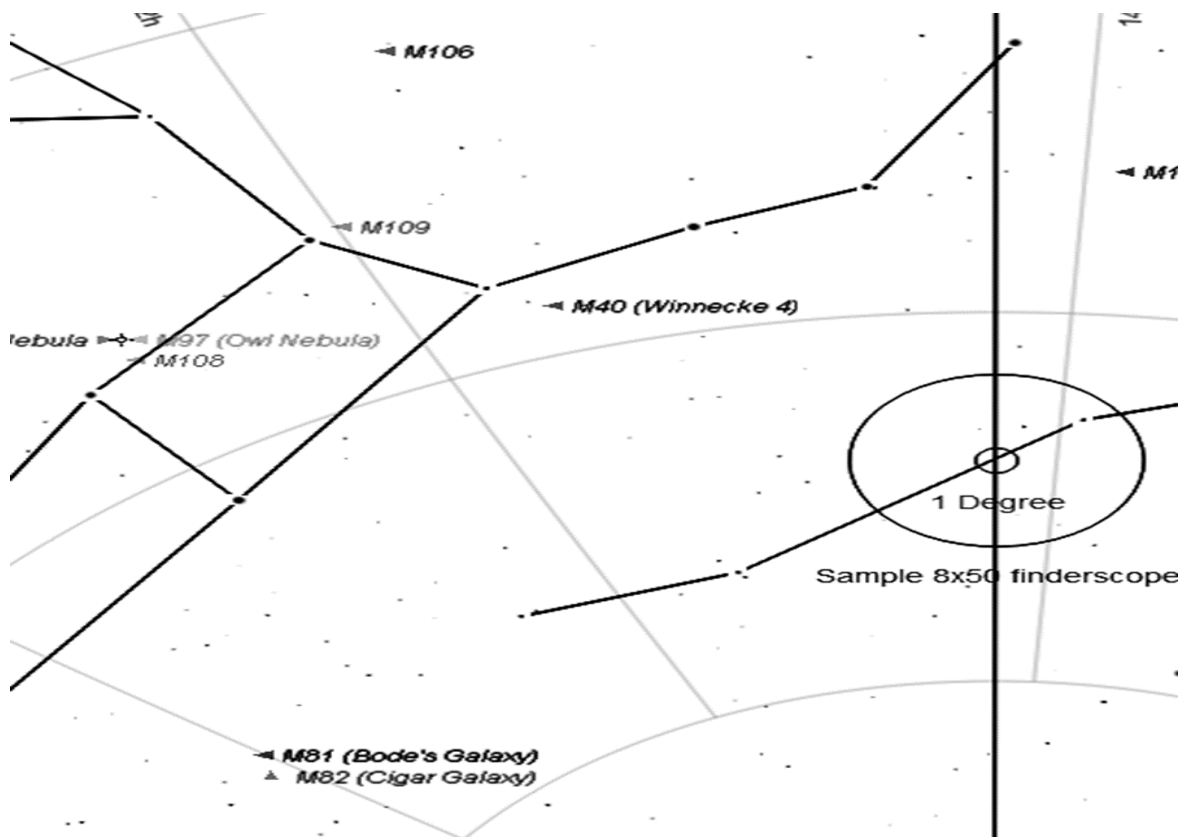
Last Quarter : 25<sup>th</sup>

Astute readers will note that these dates are a day or so earlier than in May. This is because the Moon goes from one New Moon to the next in 29.5 days. Since every month except February are one to two days longer than this, the dates slip behind one day each month.

This time of the year, galaxies are abundant in the evening sky. Astronomer will be drawn to the Virgo groups centered about 45 degrees high in the south, but don't forget the higher, and closer, Ursa Major group centered around the Big Dipper. Some of my favorites in this region from memories of my Days of Youth include M81 and M82, and M51.

M81, the brighter of the pair that includes M82, is off the end of the bowl of the Dipper that consists of the two pointer stars.

The chart below shows the Big Dipper for reference, and where various Messier objects are. The chart is rotated to show the position of the Big Dipper for June 15<sup>th</sup> at 9:00 PM. For reference, the big circle shows the field of view (FOV) of a typical 8x50 finder. The smaller circle shows a 1deg FOV.



M81 and 82 are in a tough region of the sky for star hopping. There are no stars brighter than around 4<sup>th</sup> mag to use, so I use setting circles to find it.

First, get the coordinates for the end handle star : 11 hr 5 min in RA, +61° 40' in Dec.

Next, get the coordinates for M81 : 9 hr 57 min in RA, +68° 59' in Dec.

Subtract one from the other to get the offsets you'll need : -1 hr 8 min in RA, +7° 18' in Dec.

Center the finder, then the main scope, on the end handle star.

Adjust the finder set screws so its crosshairs are centered on the star. DO NOT MOVE THE MAIN SCOPE.

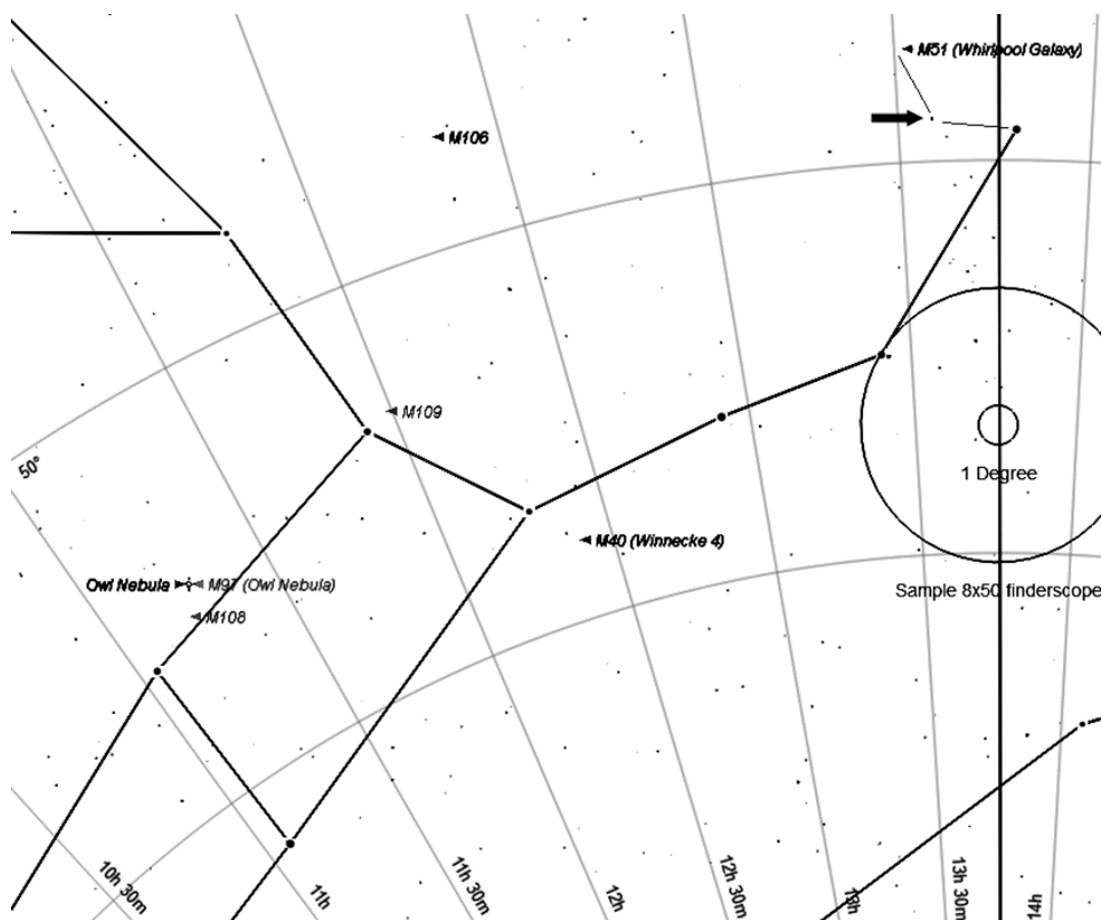
Now without moving the scope, adjust the RA setting circle to read the stars RA, 11 hr 5 min.

Again, without moving the scope, make sure the Dec setting circles read +61° 40'. If it does not, adjust the Dec setting circle.

Move the scope ONLY IN RA until the indicator for the RA setting circle reads 9 hr 57 min.

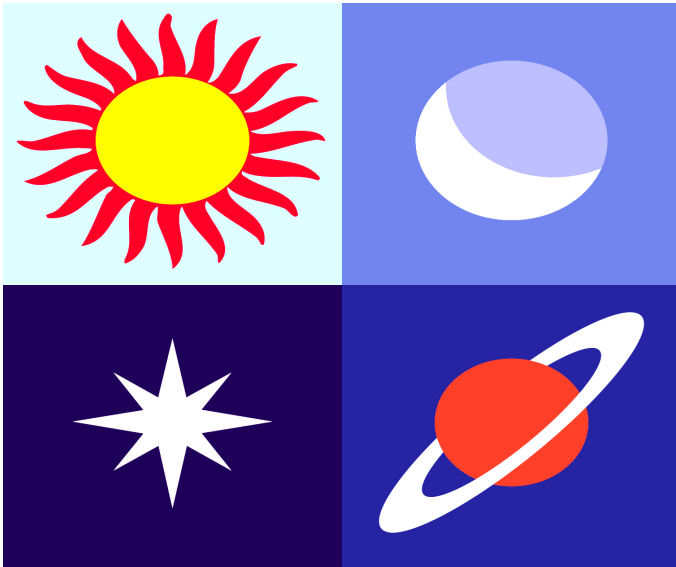
Move the scope IN DEC ONLY until the indicator for the Dec setting circle reads +68° 59'.

M51 lies off the end star of the Dipper's handle, at a right angle from the two end handle stars. My way of finding it is to locate that end star, then look through the finder to see a 5<sup>th</sup> mag star south of that star. It's pointed to by the arrow. Then form a triangle with that star as shown by the thin lines. The invisible (through the finder) third point on the triangle is M51.



The LAAS operates the Garvey Ranch Park observatory in Monterey Park, located just off the east parking lot. It is open for public viewing every Wednesday night around 7:00 PM to 10:00 PM, weather permitting. There is an 8-inch 9-foot long refracting telescope for visual observations, and a 4-inch telescope for photographing objects. Also, people often set up their own telescopes out on the lawn beside the observatory. If you have any questions on equipment, observing, or just want a peek through the observatory's scopes, drop on by !

# Almanac



**June 3 - 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 10:02 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.

**June 10 - Jupiter at Opposition.** The 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 Jupiter and its moons. A medium-sized telescope should be able to show you some of the details in Jupiter's cloud bands. A good pair of binoculars should allow you to see Jupiter's four largest moons, appearing as bright dots on either side of the planet.

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](#)

**June 17 - 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 08:31 UTC. This full moon was known by early Native American tribes as the Full Strawberry Moon because it signaled the time of year to gather ripening fruit. It also coincides with the peak of the strawberry harvesting season. This moon has also been known as the Full Rose Moon and the Full Honey Moon.

**June 21 - June Solstice.** The June solstice occurs at 15:54 UTC. The North Pole of the earth will be tilted toward the Sun, which will have reached its northernmost position in the sky and will be directly over the Tropic of Cancer at 23.44 degrees north latitude. This is the first day of summer (summer solstice) in the Northern Hemisphere and the first day of winter (winter solstice) in the Southern Hemisphere.

**June 23 - Mercury at Greatest Eastern Elongation.** The planet Mercury reaches greatest eastern elongation of 25.2 degrees from the Sun. This is the best time to view Mercury since it will be at its highest point above the horizon in the evening sky. Look for the planet low in the western sky just after sunset.

Source: <http://www.seasky.org/astronomy/astronomy-calendar-2019.html>



# June 2019

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						Dark Shy Night 100 Inch Night
2	3	4	5 Garvey Night Board Meeting	6 Outreach/North Hollywood	7	8 Public Star Party
9 New Members Open House and Potluck	10 General Meeting	11	12 Garvey Night Lockwood Meeting	13	14	15
16	17	18	19 Garvey Night Merit Badge Meeting	20	21	22 Family Night
23	24	25	26 Garvey Night	27	28	29
30						

## 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)



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](mailto: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>



## 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

**President:** Timothy Thompson

timthompson3@verizon.net

**Vice President:** Curtis Byrom

cbyrom484@yahoo.com

**Treasurer:** John O'Bryan, Jr.

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



## 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.



**Click on any of the images below to discover links to astronomy information, videos, photos, and at times, old sci-fi movies, too!**



**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](http://www.LAAS.org)

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**From:**  
The Los Angeles Astronomical Society (LAAS)  
c/o Griffith Observatory  
2800 E. Observatory Road  
Los Angeles, CA. 90027

PLACE  
STAMP  
HERE

**To:**