



THE LOS ANGELES ASTRONOMICAL SOCIETY

THE BULLETIN

APRIL 2018

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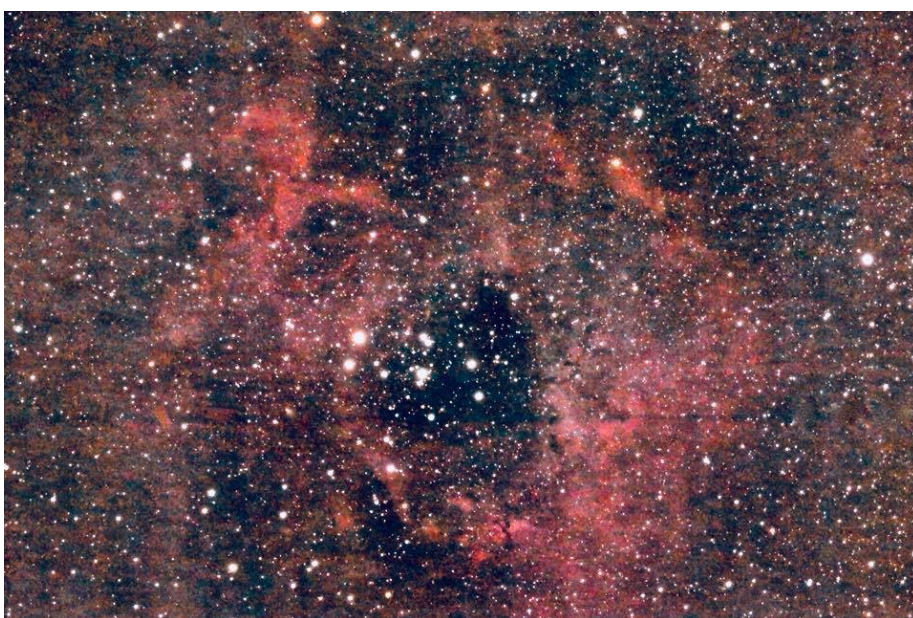


Photo above: Rosette Nebula imaged from Van Nuys. Unguided Mount, 165x14secs , ISO 1600, stacked in DSS and minimum processing in Pixinsight and no calibration frames. Don't know why there is a horizontal line running through the middle of image.

Camera : T3i canon Astro modified with 80 mm Stellarvue refractor

Photo Credit: Nasir Jeevanjee/LAAS

Seeking Volunteer Opportunities In the LAAS?

We need writers, thinkers, movers, and shakers! Blend new ideas with old and make a difference! Write articles for our website and newsletter, take photos at events, help our telescope operators with the public, use astronomy props to teach the public about the cosmos. Email Coordinator@LAAS.org for more info.

Want to be identified as a member of the LAAS? Orders are being taken for our colorful club jackets and T-shirts, for current members only For more information, please to go Page 17.

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mark  your **Calendar**

Dates To Remember!

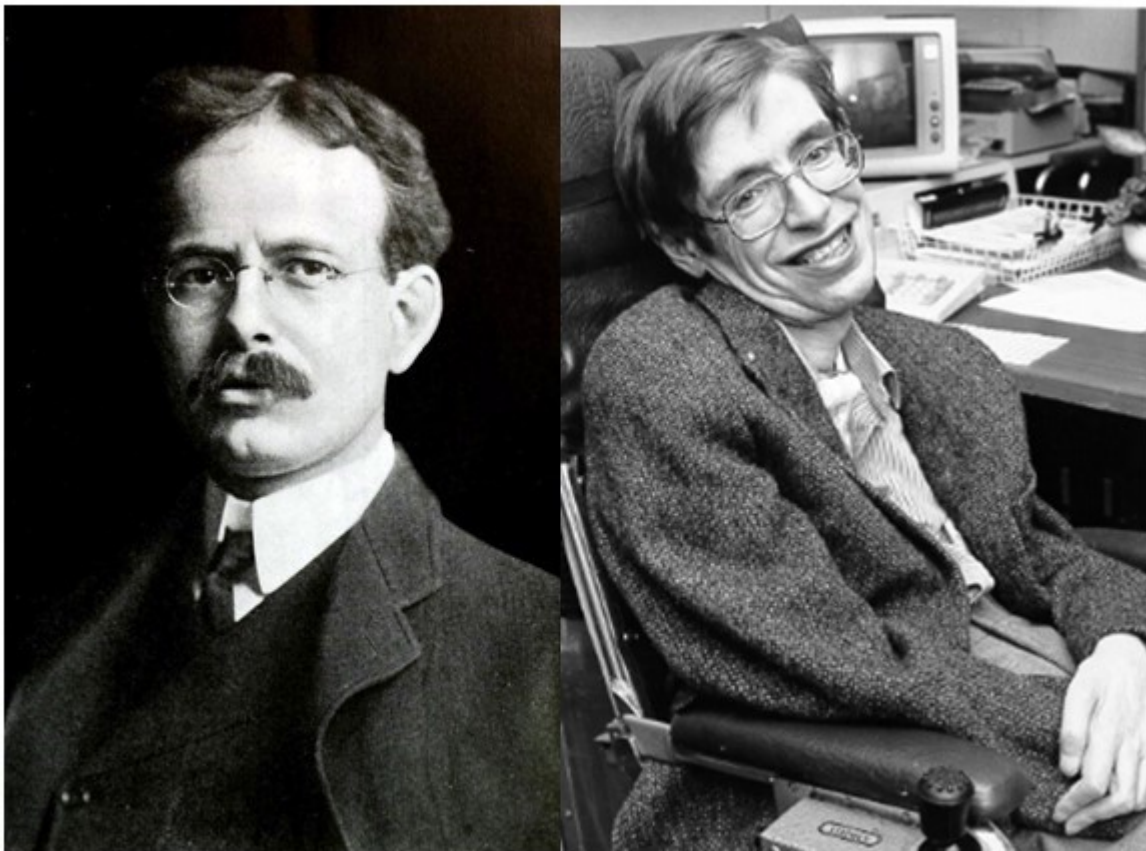
Board Meeting: Apr. 4th.
 General Meeting: Apr. 9th.
 Public Star Party: Apr. 21st.

But What Lies Beyond?

By Ray Blumhorst

Some people see what lies before them and ask, "But what lies beyond," then go there.

One hundred and fifty years after the birth year of George Ellery Hale, Stephen Hawking, another great Astrophysicist, passes into the realm beyond life. Like Einstein before him, Hawking was able in his lifetime of great achievements to find the time to pilgrimage to Hale's 5700-foot high cathedral of science at Mount Wilson Observatory, and see the place where the true vastness of our universe, and its expansion, were found.



George Ellery Hale (6/29/1868 – 2/21/1938) Stephen Hawking (1/8/1942 – 3/14/2018)

This year, 2018, is the sesquicentennial year of Hale's birth, and his outstanding pioneering spirit still shines forth through all the achievements he's bequeathed to our world (s).

From solar astronomy to giant telescopes, the wonders of the heavens challenged Hale's intellect to be discovered. And the wonders therein never ceased to captivate the imagination of Hale throughout his life. From youthful science novice in Chicago to mighty inventor and explorer high atop California mountains, Hale stood, and still stands, among the greatest minds who've turned their eyes to the heavens, then went farther than those who'd gone before.



Orion Nebula, taken at LAAS Star Party @ MWO, 10-14-17

“Look up at the stars and not down at your feet. Try to make sense of what you see, and wonder about what makes the universe exist. Be curious.” - Stephen Hawking

“Like buried treasures, the outposts of the universe have beckoned to the adventurous from immemorial times. Princes and potentates, political or industrial, equally with men of science, have felt the lure of the uncharted seas of space, and through their provision of instrumental means the sphere of exploration has made new discoveries and brought back permanent additions to our knowledge of the heavens.” - George Ellery Hale

Although it's with sadness that we part Earthly ways with loved ones and friends, it's also with respectful fondness that we remember them. Old astronomer's discoveries never die they just expand into infinity, then coalesce into new frontiers.

There is no better place to celebrate the enchantment of human curiosity (past and present) than atop Mount Wilson at the observatory left by George Ellery Hale. And there is no better time than now to stretch one's human imagination and perception into the great vastness beyond our small world s).

Jimmy Herron, the Solar Eclipse of 1918 and the Start of a Business Empire

by Lew Chilton, LAAS Historian

Nearly a hundred years ago, on June 8, 1918, another “All American Solar Eclipse” captured this country’s imagination, just as it did last year on August 21, 2017. But in 1918 the shadow path bowed slightly southwestward towards Los Angeles, allowing its residents to see a slightly deeper (74 percent) partial eclipse.



1918



2017

One of the thousands of Angelenos who witnessed the 1918 spectacle was Jimmy Herron. In Los Angeles only a short time, he was working as a laborer for the Globe Lunch Company on South Spring Street.

Figuring that he could get a better view of the eclipse with optical aid, he fashioned a small, crude telescope from a pair of spectacle lenses and a cardboard tube that bore a striking resemblance to Hans Lippershey’s first optic tube 310 years earlier. Herron’s 4-power telescope was a small improvement over the naked eye, but what’s more important, it set him on a course that led to a successful career in optics and to the establishment of an optical firm that would one day become a leader in its field.

In 1918 Herron knew nothing about telescopes, but after the eclipse he set himself the task of learning all he could about them and spent countless hours in the library reading everything he could find on the subject. He soon began experimenting with small lenses and prisms.

He learned the techniques for grinding, polishing and testing them and achieved his first success with a mirror of 6-inches diameter made from a piece of plate glass. The telescope that he built around it was also made of cast offs. With only a 3rd grade education, he studied math and optical theory and within a few years was making refracting telescopes and all their components, including eyepieces, finder scopes and prism diagonals.



Spring and 2nd streets, looking south, c. 1920. (Source: Security Pacific National Bank Collection, online at Los Angeles Public Library Photo Collection)



Sidewalk Astronomy

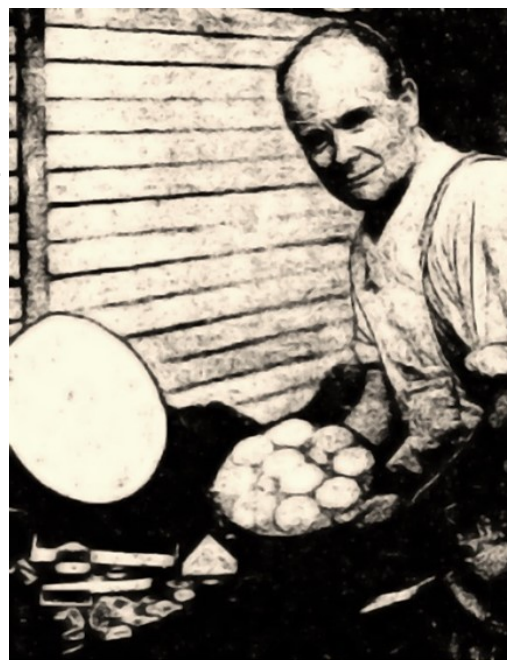
By the early 1920s, Herron was earning upwards of \$5 to \$10 an evening charging passersby 5 cents for a look at the moon or whatever else was visible in the sky. By moving from one street corner to another each night, he found the most lucrative spots to set up his telescope. A few pedestrians returned repeatedly for another look. One of these regulars who became a friend was Franz Seigler, a piano tuner and repairman who worked for the movie studios. He suggested to Herron that he offer his services to the studios because they were always in need of special lenses and filters for their motion picture work. Seigler made a substantial loan to Herron so that he could set himself up in business. This was about the same time that Herron assisted in organizing the Amateur Telescope Makers’ Society in 1926.

Herron's first optical shop was a small storefront on East Santa Barbara Street. Seigler and two of his sons worked for the Herron Optical Company at various times while Herron lived in a nearby rooming house operated by Mrs. Seigler.

Although Herron continued to supply mirrors, lenses and advice to fellow amateur astronomers, and was often visited by them at his shop, his bread and butter work was optics for the movie industry. Describing himself as an experimental optician, he found solutions to difficult problems that movie directors brought to him when they needed a special optical or lighting effect. He could provide a single optical component or produce them in quantity.

George A. Mitchell, another charter member of the Amateur Telescope Makers' Society, developed the Mitchell motion picture camera that for decades was the workhorse of the film industry. Mitchell and Herron undoubtedly knew one another through their club affiliation, so it's certainly conceivable that Herron had a hand in the Mitchell camera's optics.

During the Depression years, theater attendance swelled because of the public's desire to escape the harsh economic realities for a few hours by taking in a movie and a newsreel. As the movie industry prospered, so did Herron Optical.



Jimmy Herron in his optical shop, 1931.
(Source: L.A. Times, Mon., June 1, 1931, Part II, p. 2)



Jimmy Herron (far right), and two of his employees: Bill Seigler (left) and Avery Hildom (center). The year was 1937.

While growing his business, Herron continued to maintain close ties with the Amateur Telescope Makers' Society. The September 1929 issue of the ATMS *Bulletin* notes, "A recent visit to the optical shop of Mr. Jas. Herron proved...interesting as well as instructive. We had an opportunity to see the shadow tests being made on a large mirror, and of learning from Mr. Herron...a great deal we did not know... His willingness...to give explanations and render assistance to those in difficulties with their work should appeal especially to members trying their hand at their first mirror."

At the start of the Second World War, work at Herron Optical took on an urgency with the addition of British and U.S. Government contracts for the production of pentaprisms, aircraft gun sight components and filters. The addition of war work required an increase in the workforce, additional shifts and lengthened workdays. To attract new employees and keep the old ones, Herron reluctantly raised wages. Tom Cave, by then a seasoned employee of one year, remembered his hourly wage increasing from 60 to 80 cents, and overtime to \$1.20. And there was plenty of overtime

During the post-war years, work at Herron Optical dropped off to pre-war levels and slowed even further by the start of the Korean Conflict. In 1959, Bausch & Lomb purchased Herron Optical and operated it as a subsidiary. Jimmy Herron died the following year, but the company he founded lived on. In 1966, a 23,000 square ft. facility was built near the junction of the San Diego and Harbor freeways in Carson, California. In 1984, the Herron Optical

Division was sold to the Laser Power Corporation, which was acquired by yet another company in 2000. And that's where Jimmy Herron's legacy comes to an end, except, of course, in LAAS records.

The 12.6 Inch Telescope Rebuild

by Jack Eastman

A very long time ago, on another planet (Manhattan Beach CA) a high school kid, terminally smitten with a burning interest in astronomy was definitely in the market for a telescope. After his folks purchased a 40-mm then a 60-mm refractor, of high quality, the overpowering desire for something bigger was present. There was the mirror grinding class put on by the Los Angeles Astronomical Society, so a 6-inch mirror was attempted. Outcome was good, after Tom Cave, of Cave Optical Co., reground and refigured this first attempt, cited by Tom as "The Worst Butcher Job to a Poor Defenseless Piece of Glass!". After a few years, this kid's folks ponied up for a 12.5-inch grinding kit, the largest that was practical, especially when cost was considered. The kit was \$48, a 16-inch, glass alone, was over \$180! It turned out this "monster" was a success, and the Dad was heavily involved in the "blacksmith" work of building the mount while the kid did the optics. Tom Cave tested that mirror and declared it "better than what we make around here!" and Cave did some very good optics! The telescope saw first light, Jupiter, in August of 1957. Here's the story of the making of this beast and a bit on how that kid got terminally hooked on astronomy and in doing so almost drove his parents batty.

http://www.denverastro.org/dfiles/eastman_1.html



You've probably guessed by now that "kid" was me and it was my Dad that helped make this a reality. In September, 1969 I was lucky enough to leave the Land of Perpetual Smog and come to the Denver area. Shortly after my stuff arrived, including the 12.5 inch telescope parts. (I had brought the optics with me on my initial drive to Denver). The 'scope was soon rebuilt and put to use. It had seen better days and was looking a little beat. Mike Thornton, then himself a high schooler and member of the Denver Astronomical Society (DAS) graciously offered to give this thing a facelift, and did a great job of repainting it. And so it was. But after another 47 years this poor thing was decidedly in need of help! Enter David Zielsdorf of Professional Tree Services. Dave had done a bunch of tree trimming and related work for me over the past decade, we became fast friends, and he took notice of the condition of the 'scope. The Big Newt, as I call it, being rather large and of the Newtonian design was, without a doubt, in need serious of help. Rust and the peeling remains of Mike's almost half century old paint, along with most of the wood parts severely rotted left the 'scope in grave need of serious refurbishment. I recall Dave ripping a piece out of one of the saddle pieces and saying "This wood's gotta go!" I said "No it ain't gotta go, it's already gone!"

The resurrection started early 2017, Dave had removed a large Silver Maple and sliced up the wood. He was able to make new saddle pieces from this, fitted them nicely to the tube, then gave them to a friend who kiln dried them for a couple of months. Dave strongly suggested rather than just slapping on a coat of paint, we were gonna completely dismantle the thing strip everything down to bare metal and paint it with Truck Bed Liner. I wasn't too sure about this, it would be heavy and isn't bed liner black? The 'scope, tubes in particular, wants to be light colored, mainly for thermal reasons. Dave said we could get the liner in any color we wanted.

Well, O.K. There was an old "Christmas tree" oil well valve system as an object d'art along the Bear Creek bike path that I'd seen on many of my bike excursions along this trail. It was a rather light blue and with darker blue accents. Over the years I thought that'd be a good scheme for the telescope, so when the moment of truth was upon us, that's what we got, Bed Liner in a very light blue for the tubes and a darker sort of regular blue for the mount head and accessories, finder rings and such.

So, it was. Obviously remove all the glass then dismantle the tubes, and as much of the mount as we needed. Dave used powerful angle grinders to strip everything down to bare metal. For a while I thought of slapping on a clear coat or the like, everything being shiny bare steel! Almost disaster... Dave took all the finder/counterweight rings and the declination clamp/slow motion assembly to a friend to have them chemically stripped. Dave didn't tell Mike what this was or that it was coming, Mike discovered a tub of rusty "junk" cut off the control rods and tossed everything in a local dumpster! Fortunately Dave



discovered this a couple of hours later and made mad dash to the dumpster! Again, fortunately, nothing else had been dumped and all our stuff was still

there. Whew! Mike rebrazed the control rods and in doing so somehow had repositioned one of the joints. It works very smoothly now, something it hadn't really done for the past 60 years! Dave, and business partner Josh, took the tubes to a local car wash and thoroughly cleaned out the insides. A slight breeze caught the main tube, knocking it over and breaking a couple of the 14-inch piston rings used for internal reinforcement. Oh! (words not heard in Church or Polite Company)! That, however, was easily repaired and all was, once again, well. I was still concerned about the weight of the bed liner. Dave handed me a box... "How much does this weigh?" he asked. "Not much a couple of pounds, maybe?" It contained 4 liters of bed liner, the tints, hardener and the spray gun and don't forget the bottles! "How can this weigh any more after we spray the stuff on?!" Point well made! Painting was accomplished without any hitches. I didn't want any paint around the drive gears, so the thought was we'd tie a big bag around these gears to keep the paint off... Dave had a better idea, came up with a tube of "Tacky Red #2 Grease" and greased the heck out of the gear teeth, and then went ahead and "lined" everything. The paint wouldn't stick

to the grease and yes, the gears and everything sure looked a whole lot better! As a final little thing Dave picked up a can of gold Rustoleum, thinking he'd paint the finder tubes gold. I thought about this, yes, seemed like it would be a nice highlight. It was. Looked more like brass than if they were brass tubes!

We also replaced much of the hardware, new bolts, new metal for the straps around the main tube and the wood rails on the side of the saddle were replaced by heavy angle aluminum rails. We made heavy reinforcements for the attach points for the control rods and Dave drilled extra holes so the main tube would be held in place with four large bolts instead of the original two.

Continued on next page...

When this thing was originally made, the weld where the tube mounting plate was attached to the declination axis was not orthogonal. The optical axis was off by about a degree and a half from the required 90-degrees.. We made many measurements and a bit of work with a planer on the saddle pieces. we able to get the error in that angle down to less than 5 or maybe 6 arc minutes!

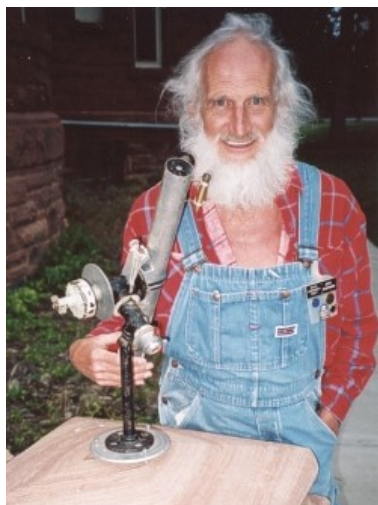
It's now late July and reassembly is in progress. We managed to get everything together, the operation going very well. I was surprised that the balance was good, it really didn't need any but the most minor tweaking! The drive



seemed to run much better (that heavy dose of grease did, indeed, help!). Dave said, what with Bed Liner and all, this thing oughtta last another 100, if not 200 years! Truck Bed Liner is incredibly tough and tenacious and, yes, will protect this from the elements for a very long time. I told him I wasn't worried, I'm rather sure I won't last anywhere near that long!

We're done! Sure doesn't feel like the same 'scope. Too bad it's cloudy, but through a small sucker hole, I, along with two of my newest neighbors, were able to see Jupiter and some of its large moons. I used the old Gailand 16.8-mm Erfle (145X) my very first "good" eyepiece from long ago. Only fitting, as Jupiter was First Light exactly 60 years earlier with the same eyepiece. So it was Second First Light, or should that be First Second Light? And a howling success!.

By F. Jack Eastman, David A. Zielsdorf.



Jack Eastman



Session Nights

Mt. Wilson Observatory

2018 Session Schedule:

- April 14th (Sat)
- May 5th (Sat) **100 Inch Night**
- June 9th (Sat)
- July 7th (Sat)
- August 4th (Sat)
- September 7th (Fri)
- October 5th (Fri)
- November 3rd (Sat)
- December 1st (Sat)

The price 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.

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" or "100 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.



60 Inch group photo from April, 2017

JPL Open House

June 9-10, 2018

Sign up for JPL's mailing list to be contacted when the tickets are available for their Open House event in June.

Last year, the tickets were made available on March 11th at 9 AM. This year? March, April, or May? Only JPL knows!

Tickets are non-transferable so you won't be able to use someone else's ticket if you can't get your own.



Sign up using this link: <https://www.jpl.nasa.gov/signup/>

Video Link: JPL Open House 2017

<https://www.youtube.com/watch?v=9eAFerUcQso>

JPL Contact Information-Public Services Office

4800 Oak Grove Drive
Jet Propulsion Laboratory
Mail Stop 186-113
Pasadena, CA 91109
Phone: (818) 354-1234



[› Directions to JPL](#)

RTMC 2018 - Riverside Telescope Maker's Conference

May 24th - May 28th

Registration and General Information

This year is the RTMC Astronomy Expo's 50th Anniversary! We are planning to "do it big" to celebrate! David Levy will be speaking, as will a great slate of speakers all day Saturday and Sunday.

REGISTRATION IS OPEN!

Go to rtmcastronomyexpo.org

Why should YOU plan to come to RTMC-AE?

Because:

- 1 – Numbers! We have more attendees than any other Astronomy event on the West Coast. We had 550 last year, and it continues to grow. We're expecting a bump this year with the 50th anniversary. And we have no residency restrictions.
- 2 – Low Cost! We're one of the most reasonably-priced Astronomy Expos. Children under 17 are FREE and college students with ID are half-price.
- 3 - Activities! It's a YMCA camp, so there's a lot to do for everyone besides all the Astronomy events. But we do have workshops, lectures, star parties, a great swap meet (free to sell your goodies!) and Vendors for the Astronomers in the bunch.
- 4 - Kid's Stuff! We're actively working to bring youngsters into Astronomy! We have Children's activities and the Kid's Ice Cream Social on Sunday afternoon.
- 5 - Beginner's Corner! An active and expanding program for the new Astronomer, all the basics one needs to know to get started!

We'll see you here Memorial Day Weekend 2018!!

Cheers-

Teresa and the RTMC-AE Board
Questions? Email teresa@lbt.org



Follow the link below to view the

RTMC 2018 Brochure:

<http://rtmcastronomyexpo.org/wp-content/uploads/2017/09/brochure.2018.pdf>

Meet The New Members

Welcome to the LAAS!



Brian Demapan

Meg Jadhav

Michael Shustak and Johanna
Siegmann

Andrew Ellis

Jay Gravink

David Thrall

Nathan Mader

Patrick O'Brien

Daniel Kim

Larry Hurtado and 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.

NEW: You may listen to recorded meetings by logging in to our website at LAAS.org and clicking on the "Members Only" tab.

Before you try to access the "Members Only" information, you need to request login credentials from our Webmaster. On the left hand side of the page, scroll down and find "Login." Click "Login" 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 out-reach 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.



A Guide To The Night Sky

Tre Gibbs

The incredibly bright planet Venus, which was “The Morning Star” for most of last year, has been slowly making her return as “The Evening Star” since late January, gradually climbing higher and higher in the western sky, but still appearing relatively low all month long. Around mid June however, Venus will reach her peak elevation, though only about 24 degrees above the horizon, which is roughly one third of the way up the sky. Venus will then begin her slow and gradual decent, finally disappearing below the western horizon sometime near mid October, on her way to once again becoming “The Morning Star”.

Venus is a very interesting world. Often referred to as Earth’s sister planet, Venus could not be more different from Earth. For example;

1. Venus is the hottest planet in our solar system. One would think Mercury would be hotter because it’s the closest planet to the sun. But Venus’ atmosphere is loaded with carbon dioxide, which has caused a runaway greenhouse effect. An average day on Venus would be about 900 degrees Fahrenheit. Lead melts at that temperature.
2. The air pressure on Venus is about the same as the pressure at a depth of 1 kilometer in Earth’s oceans. It would crush you to death.
3. On Earth, the clouds are made of water vapor. On Venus, the clouds are made of sulphuric acid.
4. Venus is so bright because it’s not only close but completely shrouded in cloud cover, which does a very good job at reflecting sunlight.
5. Venus rotates slowly. VERY slowly. So slowly, that it actually completes one orbit around the sun before it completes one rotation on it’s axis. Therefore, Venus’ day is longer than it’s year.
6. Venus also rotates opposite Earth, so on Venus, the sun rises in the west and sets in the east.

Mighty (and also bright) Jupiter, The Roman King of the Gods, is making his way back to our evening skies as well. Jupiter is the 4th brightest object in the sky after the sun, moon and Venus - in that order. Early in the month, on April 2nd, you can easily spot Jupiter (weather permitting) as the bright object directly under the moon, both rising in the east southeast around 11:00 - 11:30 pm. By month’s end, on April 29th, Jupiter rises around 9:00 pm, again, underneath the moon. Both will be well above the southeastern horizon by 10:00 pm, shining like beacons. Saturn, The Roman God of Agriculture and Mars, The Roman God of War, start off the month rising as a pair around 3:00 am, with Saturn traveling above his orange-ish tinted cosmic counterpart. In fact, look for both wanderers around 4:00 am on April 7th, just under a waning, *almost* three quarter (or half full) moon. Also keep in mind that Mars, moving faster in it’s orbit around the sun than Saturn, is gradually slipping eastward underneath Saturn and by month’s end, both rise almost an hour apart, Saturn first around 1:00 am and Mars following around 2:00 am.

“*Did You Know?*” - Easter is not based on a particular date, like Christmas or New Year’s but rather on astronomical cycles. Easter Sunday is the first Sunday *after* the first full moon *on or after* the Spring Equinox, which is why Easter falls sometimes in March and sometimes in April. For example - this year the Spring Equinox was on March 20th, the first full moon after that was Saturday March 31st, therefore Sunday April 1st is (was) Easter. Valuable information, especially the next time you hear someone ask, “When is Easter this year?” ;)

Until next month, keep looking up - there’s a great show above happening every night!

Tre Gibbs



ALMANAC

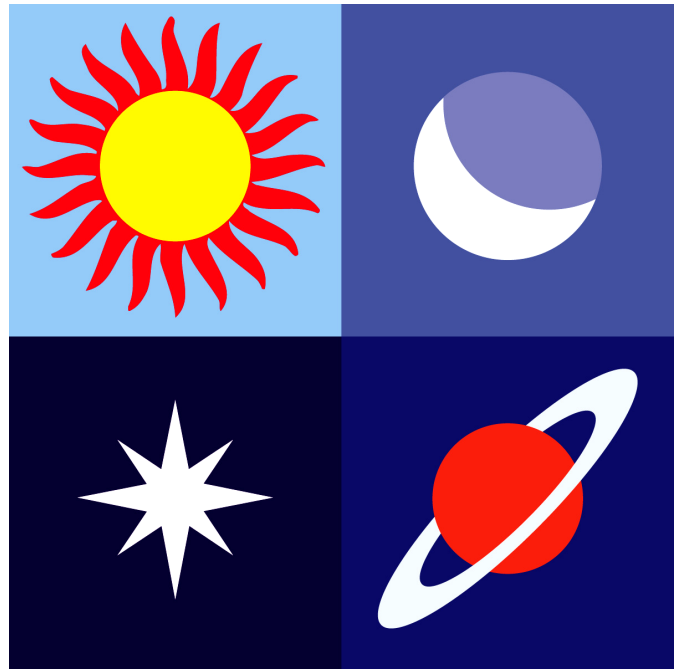
- **April 16 - New Moon.** The Moon will be located on the same side of the Earth as the Sun and will not be visible in the night sky. This phase occurs at 01:58 UTC. This is the best time of the month to observe faint objects such as galaxies and star clusters because there is no moonlight to interfere.
- **April 22, 23 - Lyrids Meteor Shower.** The Lyrids is an average shower, usually producing about 20 meteors per hour at its peak. It is produced by dust particles left behind by comet C/1861 G1 Thatcher, which was discovered in 1861. The shower runs annually from April 16 -25. It peaks this year on the night of the night of the 22nd and morning of the 23rd. These meteors can sometimes produce bright dust trails that last for several seconds. The first quarter moon will set shortly after midnight, leaving dark skies for the what could be a good show. Best viewing will be from a dark location after midnight. Meteors will radiate from the constellation Lyra, but can appear anywhere in the sky.
- **April 29 - Mercury at Greatest Western Elongation.** The planet Mercury reaches greatest western elongation of 27 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 morning sky. Look for the planet low in the eastern sky just before sunrise.
- **April 30 - 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 00:58 UTC. This full moon was known by early Native American tribes as the Full Pink Moon because it marked the appearance of the moss pink, or wild ground phlox, which is one of the first spring flowers. This moon has also been known as the Sprouting Grass Moon, the Growing Moon, and the Egg Moon. Many coastal tribes called it the Full Fish Moon because this was the time that the shad swam upstream to spawn.

Source: <http://www.seasky.org/astrometry/astrometry-calendar-2018.html>

Need Help With A New Telescope?

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

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



Rewarding!
Fulfilling!
Fun!

Be a part of something great!
Join our Outreach team
of volunteers today.
Contact Heven Renteria,
our Outreach Coordinator
at
Outreach@LAAS.org



APRIL

Event Calendar

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

The NASA Museum Alliance

For Night Sky Network Members



NSN members only: Add to your NASA expertise with a treasure trove of NASA experts at your fingertips. Interested in getting professionally-vetted NASA content for your club and outreach events?

The NASA Museum Alliance hosts archived and live teleconferences with scientists and engineers discussing the latest news about NASA missions and research. As a member of the NASA Night Sky Network community, you too can get access to a searchable archive of over 500+ past teleconferences – all complete with recordings, transcripts, and ready-to-use presentation materials on practically any NASA topic under (and beyond) the Sun!

You can also access upcoming live teleconferences! You can find login information for the Museum Alliance portal on our [special members-only resource page](#) (NSN login required).

If you have not registered as an LAAS member on the Night Sky Network, please do so by following this link:

[NSN Registration Form for the LAAS](#)

When you visit our club's website at LAAS.org, you will find this blue box on the right hand side of our homepage. It is the NSN widget. Anyone who visits our site can enter their city, state, and zip code to find astronomy events and clubs, just like ours, anywhere in the USA. This is a handy tool if you're going on vacation or on a business trip and would like to find astro events or contact a local astronomy club.

Click on the box and you'll be magically transported through the internet to our website where you can try the widget out for yourself.



LAAS JACKETS, T-SHIRTS, AND CAPS



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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:

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John O'Bryan, Jr./Treasurer



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Sky Report:

213-473-0880

Lockwood Site:

661-245-2106

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