

June 2024

Sponsored by the Santa Barbara Museum of Natural History



On Friday, June 14, Santa Barbara Museum of Natural History <u>Astronomy Programs</u> Manager John Winckowski will unveil and dive into mysterious moons with fascinating stories and facts. Isolated on a small patch of land between the inhospitable mountains and the unfathomable depths of the ocean, and never satisfied with just one planet to live on, Winckowski is the Museum's resident astronomer and moon enthusiast. He has always wanted to travel to the stars and explore alien worlds. Until that's feasible, he'll do the next best thing: study neighboring worlds and their many moons."

OUTREACH SUMMARY

Thanks to everyone that volunteered at Astronomy Day!

Since the last newsletter, certified AU volunteers Brandy Ackerman, Andy Allen, Melissa Cohen, Krissie Cook, Tim Crawford, Joe Doyle, Tessa Flanagan, Morgan & Brian Green, Art Harris, Ron Herron, David Larson, Pat & Chuck McPartlin, Bonnie & Bruce Murdock, Edgar Ocampo, Tom Totton, Tom Whittemore, Lee Wilkerson, Pat Forgey & Jerry Wilson, John Winckowski & Ila Komasa & Quasars & SBMNH volunteers, and Andre Yew showed cool stuff in the sky to **656** people. Lots of May Gray cloudouts! SBAU volunteers must have undergone the SBMNH background check, and conform with the SBMNH policies for dealing with the public, to participate in outreach activities. To get vetted, contact SBMNH Volunteer Manager Rebecca Coulter <<u>rcoulter@sbnature2.org</u>>. It's quick and painless.

Summer campground events are ramping up, so come join us if you can. Because Refugio State Beach is still closed for repairs, we will hold our star parties at El Capitan State Beach until Refugio reopens.

After 23 years, we won't be out at Bacara on a regular basis this year, because they are hosting their own 50 minute Coastal Stargazing events every night, and charging \$75 for each person attending. We may do some special events there at their request, like a **July 4 Star Party**.

*** Please note that our monthly meeting, with John's moon talk, has been moved to the second Friday for June. ***

OUTREACH EVENTS

Saturday, June 8, 4:30 PM

AU monthly planning meeting on Zoom. Watch your email for the link.

Saturday, June 8, setup 7:30 PM

Monthly Public Star Party at SBMNH, from 8:30 PM to 10 PM at Palmer Observatory.

Tuesday, June 11, setup 7 PM

Telescope Tuesday in the plaza by the theater at Camino Real Marketplace.

Friday, June 14, 7 PM *** NOTE DATE CHANGE ***

The planetarium is closed, so we'll start the meeting at 7 PM in Fleischmann Auditorium at SBMNH. This will be a hybrid meeting, also on Zoom. Watch your email or find the link on the SBAU web page. Our speaker will be John Winckowski on Moons in the Solar System.

Saturday, June 15, setup 7 PM

Slide show for campers at Lopez Lake, at the nature theater at the marina. Contact Chuck if you can come with a scope, and then want to camp overnight.

Friday, June 21, setup 7 PM

Monthly Public Telescope Night at Westmont's Keck Observatory, next to the athletic fields.

Saturday, June 22, setup 7:30 PM

Telescopes for campers at El Capitan State Beach, setup in the day use parking lot near the beach.

Saturday, June 29, setup 7:30 PM

Telescopes for campers at El Capitan State Beach, setup in the day use parking lot near the beach.

FROM THE PRESIDENT

Jerry Wilson

The White House has tasked NASA with creating a new time zone for the moon by the end of 2026, as part of the United States' broader goal to establish international norms in space. The direction to set up a lunar time zone comes amid growing global interest for humanity to establish a long-term presence on the moon in the coming years, a chief priority of NASA's Artemis program.

The new lunar standard, called "Coordinated Lunar Time (LTC)," is part of a broader effort to "establish time standards at and around celestial bodies other than Earth," according to an April 2 <u>memo</u> by the White House Office of Science and Technology Policy (OSTP). It was not immediately clear whether the moon would have multiple time zones, as <u>Earth</u> does. Because there is lower gravity on the moon than on Earth, time there moves slightly faster — 58.7 microseconds faster every day. Though minuscule, that difference would make it harder for the growing number of future missions to communicate with each other and for mission control to accurately track satellite and crew positions, among other issues.

On Earth, time is measured by numerous atomic clocks placed in various locations around our planet. A similar ensemble of <u>atomic clocks</u> on the moon itself may be used for lunar timekeeping. An atomic clock on the moon will tick at a different rate than a clock on Earth.

In space, there are a couple of different ways in which space agencies keep time. Astronauts aboard the <u>International Space Station</u>, which is in low Earth orbit, follow Coordinated Universal Time (UTC). For spacecraft elsewhere, NASA uses "<u>Spacecraft Event Time</u>" to catalog key mission events, like science observations or engine burns.

To establish LTC on the moon, subject matter experts throughout the international community are discussing an approach to provide recommendations to the International Astronomical Union for lunar reference frame and time systems.

NASA's Artemis program currently plans to send humans to the moon no sooner than September 2026, three months prior to the deadline to establish LTC. This article is excerpted from an article in <u>Space.com</u> by <u>Sharmila Kuthunur</u> published on April 7, 2024.

THE POTLUCK RETURNS!

In place of our July 5 meeting, we will be having a potluck dinner by the Broder Building, across the creek, starting at 5 PM. Cleanup starts at 7:30 PM to be out of the area by 8 PM. Bring a dish to share! Be sure to sign up with Events Coordinator Diane at <u>d.welcenbach@verizon.net</u>



Mike Chibnik took this image of the recent south-migrating Aurora Borealis from a location north of the Bay Area.

ARTS CORNER

Star Wedding

I kiss them when The sun and the moon Are not looking: Why are they so shy Before me?

Haven't they witnessed someone engaged In love making?

Isn't the groom's right To marry them?

The Big Dipper, The Pleiades, The Sirius.

I stop at the heaven's jewelry store, Three diamond rings I buy, To heavenly composed music

I walk down the aisle, Along the Sky-Dark boulevard,

Wedded to their Radiant light.

Ibrahim Ibn Salma

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AU AstroNews, the monthly publication of the Astronomical Unit (AU), is mailed to the AU membership. For publishing consideration for the next month, submit astronomical items by the 20th of the current month!

AU annual membership rate: \$20

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The Astronomical Unit

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JUNE 2024							
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
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2	3	4	5	6	7	8 Planning Meeting 4:30PM SBMNH Star Party 7:30PM	
9	10	11 TELESCOPE TUESDAY 7PM	12	13	14 AU Monthly Meeting 7PM	15 Lopez lake 7PM	
16	17	18	19	20	21 Westmont Public Star Party 7PM	22 EL CAPITAN STATE BEACH 7:30PM	
23	24	25	26	27	28	29 El Capitan State Beach 7:30PM	
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