



AU AstroNews

The Newsletter of the Astronomical Unit

November 2022

Sponsored by the Santa Barbara Museum of Natural History



Setting up for the girl scouts at Camp Live Oak this past April.
Photo credit: Tom Totton.

TOTAL LUNAR ECLIPSE

A total lunar eclipse will be visible from Santa Barbara on the morning of November 8. The partial umbral phase begins at 1:09 PDT, totality is from 2:16 PDT until 3:42 PDT, and the partial umbral phase ends at 4:49 PDT.

SBAU ELECTION

Our annual election is coming up in December. If you are interested in serving as an officer in the club, contact Vice President Ron Herron at brherron@gmail.com. Positions and their duties are detailed on the SBAU web page.

OUTREACH SUMMARY

To get full outreach credit, SBAU volunteers must be fully vaccinated and boosted, and have undergone the SBMNH background check to participate in outreach activities. To get vetted, contact SBMNH Volunteer Manager Rebecca Coulter rcoulter@sbnature2.org. It's quick and painless.

Since the last newsletter, certified SBAU/SBMNH volunteers Brandy Ackerman, Krissie Cook and Quasars and Girl Scouts Rochelle & Annika, Raf Cottom, Joe Doyle, Sean Fox, Sean Kelly, Tessa Flanagan & Duff Kennedy, Art Harris, Pat & Chuck McPartlin, Janet & Martin Meza, Edgar Ocampo,

Charles Schueler, Tom Totton, and Tom Whittemore showed the sky to **916** guests. Dave Brehl and Peggy O'Rork also helped out.

OUTREACH EVENTS

TUESDAY, NOVEMBER 1, SETUP 7 PM

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

FRIDAY, NOVEMBER 4, 7:30 PM

AU monthly meeting, again on YouTube Live. Links on the web page. Our speaker will be UCLA Graduate, Rory O. J. Bentley, whose topic will be "The Extreme Realm of the Milky Way's Core!"

Sunday, November 6, 2 AM - Daylight Saving Time ends, Fall Back one hour.

THURSDAY, NOVEMBER 10, SETUP 5:15 PM

Telescopes for Peabody Charter School, 3018 Calle Noguera. We enter through a gate on the SW side of campus, off Calle Granada.

FRIDAY, NOVEMBER 11, SETUP 5 PM

Telescopes for a special event for Westmont College students at their Keck Observatory.

SATURDAY, NOVEMBER 12, 5 PM

Monthly AU planning meeting in the Palmer Observatory Circle at SBMNH.

SATURDAY, NOVEMBER 12, SETUP 6 PM

Monthly Public Star Party at SBMNH, next to Palmer Observatory, 7 to 10 PM.

FRIDAY, NOVEMBER 18, SETUP 6 PM

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

The new security gate at the Cold Spring entrance is manned from 7 AM to 7 PM. SBAU members and public attendees arriving after 7 PM will have to enter through the main entrance off La Paz Road.



“I hate to bother you, Pat, but I just took this photo of a spider under your seat. Do you know what a tarantula looks like?”
Photo credit: Tom Totton.

FROM THE PRESIDENT

Jerry Wilson

Last week a close friend of mine (also my godson) dropped by for coffee and a few hours of gab. I’ve known him from when he was in elementary school, through engineering at UC Berkeley and his PhD at Georgia Tech. He’s now employed at JPL in Pasadena and writes the software that is uploaded to Ingenuity defining its next sortie. Ingenuity is, of course, the small proof-of-principle helicopter carried to Mars aboard the Perseverance rover.

It was originally intended to explore the possibility of flight as part of the rover’s exploration of Mars in search of evidence of past life. Initially it made a few flights within sight of the parent rover. It has proven so successful that its forays have gotten more demanding. It has no instruments on board except for its cameras, but it is now ranging ahead of the rover and scouting interesting routes or features. Lately it has flown autonomously out of direct data link to the rover, landing over a hill and returning to the rover.

Another mission is planned to send another rover to Mars to pick up the cigar-shaped soil samples for return to Earth. This new rover design is having problems for balancing mission capability (making the rover heavy)

against the ability of the thin atmosphere to aero brake the lander (needing it to be light). Bigger parachute?

Ingenuity has proven so rugged and capable that an upgraded version will likely replace the need for a heavy rover. The new chopper will be larger and more capable, but still lighter than the rover option. It will be a more flexible and efficient means of retrieving the cache of samples and delivering them to the return rocket.

Apparently, several new upgraded helicopters are also in the works as exploration vehicles on Mars and also for use on Titan. Since Titan’s atmosphere is eight times that of Earth, the helicopter can be much more heavy-duty. Some very exciting missions are in the planning stage.

ARTS CORNER

“A Ring of Fire”

(excerpted from “Late Migrations” by Margaret Renkl)
In 2017, I had my chance. I arrived at a nearby field in a public park to find it already ringed by people speculating about exactly when each known effect would take place. When would the color of the sky deepen? When would the air begin to shimmer, as though lighted by some other planet’s sun? When would the birds fly into the trees to roost?

Then there was my own unvoiced question: When it’s all over, will I know what I saw? Will I be able to tell the difference between what I saw and what I had merely been primed to see?

I still don’t know. I know only that something ineffable, something beyond the reach of my own language, happened in the ordinary sky. The air turned blue and then silver. A dog barked. A bird whose song I don’t know began to sing and then abruptly fell silent. The air cooled, and suddenly Venus was gleaming in the midnight-blue pitch of the sky. The people under the trees at the edges of the meadow had moved into the darkness of the open field. By the time I looked down again, they

had gathered a sheen that made them all look like angels.

And at the center of everything was a ring of fire in the sky, a thin sliver of flame that burned as brightly as the sun but was nothing like the sun. It was nothing like anything else I had ever seen, but I recognized it anyway because it was exactly like something I have heard. In Nashville, you can hear it wafting from the open door of any honky-tonk: a song about love, about desire. Like desire, it burned, burned, burned, and it made me feel puny and insignificant but also ablaze with life. The ancients believed that an eclipse would bring the end of the world, but the end of the world did not come for me.

I didn't wait for the sun to wax full again before heading home. I had to get out of there without talking to any of my fellow mortals, without hearing any of their earthly concerns. I had to leave while the air mass was still full silver. And all the way home, tiny crescents bespeckled the road, a path of fractured light that led me back to my own place in the world, right to my very door.



“Be careful. This candy corn just fused my jaws together.”
Photo credit: Tom Totton.

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The Astronomical Unit

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November 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1 FQ MOON CAMINO REAL MARKETPLACE 7PM	2	3	4 AU MONTHLY MEETING ON YOUTUBE 7:30 PM	5
6 DST ENDS AT 2AM CLOCKS "FALL BACK"	7	8 FULL MOON TOTAL LUNAR ECLIPSE BEGINS 1:09AM PST	9	10 PEABODY CHARTER SCHOOL 5:15PM	11 WESTMONT SPECIAL STUDENT VIEWING 5PM	12 PLANNING MEETING 5PM STAR PARTY 6PM
13	14	15 LQ MOON	16	17	18 WESTMONT PUBLIC STAR PARTY 6PM	19
20	21	22	23 NEW MOON	24	25	26
27	28	29	30 FQ MOON			