



AU AstroNews

The Newsletter of the Astronomical Unit

May 2025

Sponsored by the Santa Barbara Museum of Natural History



SBAU Members gather to help at the SBMNH's Solar Sunday. Photo credit: Tom Totton.

INTERNATIONAL ASTRONOMY DAY

Our big event this month will be **International Astronomy Day at the Camino Real Marketplace**. Join us for solar and lunar viewing and activities during the day, and a star party that evening.

OUTREACH SUMMARY

Since the last newsletter, certified AU volunteers David Brehl, Tim Crawford, Tessa Flanagan, Art Harris, Ronnie Herron, Sean Kelly, Ila Jade Komasa & Quasars, David Larson, Pat & Chuck McPartlin, Janet & Martin Meza, Bruce Murdock, Javier Rivera, Mike Robertson, Tom Totton, Chuck Watson, Diane Welcenbach, Tom Whittemore, Lee Wilkerson, and Andre Yew showed cool stuff in the sky to **1050** people, helped by Dr. Jen Ito and Westmont students, David Feinberg, and Jason from VCAS.

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 <rcoulter@sbnature2.org>. It's quick and painless.

OUTREACH EVENTS

THURSDAY, MAY 1, SETUP 4 PM

Solar scopes and Moon viewing for an Open House/ Science Night at Washington Elementary School, 290 Lighthouse Road in Santa Barbara. We'll have access to their blacktop playground area.

FRIDAY, MAY 2, 7 PM

Short planetarium show, followed by the monthly SBAU meeting at 7:30 in Farrand 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 CSU San Bernardino Assistant Professor M. Katy Rodriguez Wimberly on Ultra-faint dwarf galaxies (UFDs).

SATURDAY, MAY 3, SETUP 9 AM AND 7 PM

International Astronomy Day at Camino Real Marketplace in Goleta. Solar and lunar viewing, plus astronomy activities from 10 AM to 4 PM, then a break for dinner, followed a star party at 7 PM.

SUNDAY, MAY 4, SETUP 9 AM

Solar scopes and Moon views from 10 AM to 2 PM out by the Observatory at SBMNH for **Astro Fest**.

TUESDAY, MAY 6, SETUP 7 PM

Telescope Tuesday in the plaza by the theater at Camino Real Marketplace. **Pat & Chuck can't be there, so come out and help if you can!**

WEDNESDAY, MAY 7, SETUP 7 PM

Telescopes for an Astronomy Night at Dunn School, 2555 CA-154, Los Olivos. We'll be on the soccer field.

SATURDAY, MAY 10, 4 PM

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

SATURDAY, MAY 10, SETUP 7:30 PM

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

FRIDAY, MAY 16, SETUP 7 PM

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

FRIDAY, MAY 23, SETUP 6:30 PM

Star Party at Los Flores Ranch Park, 6245 Dominion Road in Santa Maria. We enter via a dirt road to the north past the main entrance - look for the sign.

SATURDAY, MAY 31, SETUP 8 PM

Telescopes for campers at Refugio State Beach. We set up at the SW end of the day use parking lot.

FROM THE PRESIDENT

Jerry Wilson

There's an interesting article online, that discusses the survivability of humans traveling to and staying on Mars for a limited time. The conclusion of the article is that the trip to and from Mars plus the duration of their stay needs to be less than four years total in order to put the odds of survival in the astronauts' favor. The culprit identified by the study, from a UCLA team, is cosmic radiation. The article is at <https://newsroom.ucla.edu/releases/safe-for-humans-fly-to-mars>

Cosmic radiation is the stuff that we get from outside our solar system and from our Sun. Apparently the stuff that comes from interstellar sources is far more dangerous to humans. Ironically one recommendation of this study is to launch a Mars mission during a solar maximum. That is when the solar radiation is at its peak, so that our solar wind keeps the interstellar contribution at a minimum.

Radiation shielding is also required, but a Starship would be able to launch such a protected vehicle into low Earth orbit (LEO). With the Starship approach, a trip to Mars would likely take six to seven months, as our recent rover missions demonstrated.

The plan is to send a Starship into LEO, using the reusable large booster's on board fuel, and most of the Starship's. Then multiple missions will ferry fuel to replenish and provision the Mars Starship. Lastly the astronauts will arrive on board and the four year radiation exposure limit will start. So time

wise, such a mission is feasible with a roughly two year stay on Mars.

Even though the radiation event is survivable this is a very risky plan. There needs to be an operational infrastructure already in place on Mars, including a GPS system, shelters, surface vehicles (Cyber Trucks?), power sources, fuel supplies, provisions, medical support, and spare Starships.

I recall a statement from a decade ago that there would be people on Mars by 2026. So far not a single Starship has achieved orbit. Eventually, I am confident we can get there, but I'm skeptical of any near term trips

LOCAL DARK SKIES ARTICLE

<https://www.independent.com/2025/04/26/cant-see-the-stars/>

T CORONAE BOREALIS

If you missed Ila's info about the impending nova of T Coronae Borealis—it's predicted to blaze into visibility really soon—you can read all about it in her latest post on the SBMNH blog:

sbnature.org/blog

This binary star system is getting some buzz now, and I recommend checking out Ila's explanation so you are ready to answer guest questions or share people's excitement about this phenomenon. Please share with your friends and family if they are curious about such astronomical events.

LIGHT JOURNEY

T Whittemore

Each clear night I go out with my binoculars and train them on the Blaze Star, T Coronae Borealis. This recurrent nova lies a few stars away from Gemma Coronae, the jewel in the Northern Crown. It's been about 80 years since it last burst into naked-eye view and the predictions are that it could light up this region in the crown any day now.

If this package of light could talk, I think about the stories it could tell us during its 3000-year journey: starting at the time of the Pharaohs, I'm sure it might document the majesty of the pyramids. A little later the rise and fall of the Roman Empire.

The Dark Ages and the efforts of the Arab astronomers to preserve and develop science during difficult times. Sometime later it might track the efforts of Napoleon to conquer Vienna. Haydn, Mozart, Beethoven and the shift of the Classical Era to the Romantic. The rise of the Romanovs and their demise with the Bolshevik Revolution. Two World Wars and the unsteady peace that was to follow.

Any day now this light is supposed to burst in our skies. In its next 80-year journey I wonder what stories it will tell those who come after us.



*"Gosh. Where did all these ants come from?"
Photo credit: Tom Totton.*

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MAY 2025						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1 Washington Elementary 4PM	2 SBAU Meeting 7PM	3 Astronomy Day All Day
4 FQ Moon SBMNH Astro Fest 9AM	5	6 Telescope Tuesday 7PM	7 Dunn School 7PM	8	9	10 Plan Zoom 4PM Star Party 7:30PM
11	12 Full Moon	13	14	15	16 Westmont 7PM	17
18	19 LQ Moon	20	21	22	23 Los Flores Ranch Park 6:30PM	24
25	26 New Moon	27	28	29	30	31 Refugio State Beach 8PM