



AU AstroNews

The Newsletter of the Astronomical Unit

August 2021

Sponsored by the Santa Barbara Museum of Natural History



A crowd of enthusiasts gathers at the Ritz-Carlton Bacara Resort. Photo credit: Tom Totton.

OUTREACH SUMMARY

There was minimal outreach in July. With the Delta variant increasing, please get vaccinated, then stay safe and healthy by wearing masks when necessary, washing your hands frequently, and practicing physical distancing.

OUTREACH EVENTS

The SBAU radio hour has been replaced by a weekly Zoom/YouTube Live event every Monday at 11 AM. If you watch, the Live video should be able to take comments and questions in its Chat area: <https://tinyurl.com/2vss2yam>

For August, there will be no in-person SBAU meetings or public telescope outreach. We are conducting the slide show portion of the Cachuma Lake, Carpinteria State Beach, and Lopez Lake outreaches, but no scopes as yet.

SATURDAY, AUGUST 7, 8 PM

Slide show for campers at Cachuma Lake, in their Fireside Theater.

WEDNESDAY, AUGUST 11, 8 PM

Slide show for campers at Carpinteria State Beach, in their Fireside Theater.

SATURDAY, AUGUST 14, 8:30 PM

Slide show for campers at Lopez Lake, in their Marina Theater.

SATURDAY, AUGUST 21, 8 PM

Slide show for campers at Carpinteria State Beach, in their Fireside Theater.

SATURDAY, AUGUST 28, 8 PM

Slide show for campers at Cachuma Lake, in their Fireside Theater.

AUGUST SKY SIGHTS

Mercury, Venus, and Mars are hanging out low in the western sunset sky in early August, but only bright Venus will be easily visible. Saturn and Jupiter are well placed for viewing by 11 PM all month. Saturn is at opposition, rising as the Sun sets, on August 1, and Jupiter is at opposition on August 19. Uranus and Neptune are still mainly denizens of the early morning sky.

At sunset on Tuesday, August 10, look for Venus close to a thin crescent Moon, with its dark side dimly illuminated by Earthshine, light that has reflected off clouds in the Earth's atmosphere only to be reflected back to us by the Moon.

The annual Perseid Meteor Shower, pieces of Comet 109P/Swift-Tuttle hitting our atmosphere at 37 miles per second, peaks at noon PDT on Thursday, August 12. That makes the best viewing time for us between 2 AM and dawn on the morning of August 12, but the nights of August 11 and August 13 should also show decent activity. The radiant point in Perseus is up by 9 PM, so early viewers may catch an occasional spectacular grazer.

On Sunday, August 22, the Full Moon may be considered True Blue. It meets the original definition of a Blue Moon as the third Full Moon in a season that has four Full Moons. Since 1946, the second Full Moon in a calendar month has been termed a Blue Moon, a much more frequent occurrence.

The International Space Station will be making some visible evening passes through our evening skies from August 1 to August 6, and predawn passes from August 21 through August 30. Its orbit may change from time to time, so to get the latest and most complete predictions, visit Heavens Above <<https://tinyurl.com/y5yt22ch>>



“That’s odd. I could’ve sworn that the battery was fully charged when I set up...” Photo credit: Tom Totton.

FROM THE PRESIDENT

Jerry Wilson

Our exciting times continue to amaze me with breakthrough science, engineering and technology. CERN appears on the track to identifying a new particle beyond the Standard Model, indicating a path to new physics, and the dramatic findings from NASA’s InSight Lander give our first look at the interior of Mars.

The InSight lander arrived at the flat equatorial plain known as Elysium Planitia in November 2018 and began recording faint Marsquakes, with magnitudes of up to 4.0. When an Earthquake happens here on Earth, it radiates a series of waves that propagate along the surface and down into our planet. Each wave is deflected or reflected by interfaces between rock types where its speed of travel is affected by rock density.

Depending the wave type and time of arrival at the seismometer, they reveal a planet’s internal structure. On Mars, InSight has given a clear view of a core roughly 2,300 miles in diameter. The whole planet is only 4,200 miles in diameter.

The gigantic core is liquid Iron-Nickel and completely reflects seismic waves. If there is a smaller inner core, a much larger quake or asteroid strike will be needed. The average thickness of the Martian crust is 15 to 45 miles on top of a 1000-mile thick mantle.

In the meantime, we’ll have to wait a bit to see if CERN has really found a “new-be.”



“Greetings, Earthlings. I come in peace.” Photo credit: Tom Totton.

ARTS CORNER

Screach Owl (2004)

Ted Kooser

All night each reedy whinny
from a bird no bigger than a heart
flies out of a tall black pine
and, in a breath, is taken away
by the stars. Yet, with small hope
from the center of darkness
it calls out again and again.

Flying at Night

Ted Kooser

Above us, stars. Beneath us, constellations.
Five billion miles away, a galaxy dies
like a snowflake falling on water. Below us,
some farmer, feeling the chill of that distant death,
snaps on his yard light, drawing his sheds and barn

back into the little system of his care.
All night, the cities, like shimmering novas,
tug with bright streets at lonely lights like his.

Camera
Ted Kooser

It's an old box camera,
a Brownie, the color and shape
of the battery out of a car,
but smaller, lighter.
All the good times –
the clumsy picnics on the grass,
the new Dodge,
the Easter Sundays –
each with its own clear instant
in the fluid of time,
all these have leaked away,
leaving this shell,
this little battery without a spark.



“That’s right. I found this crazy hat in our fireplace on the morning of December 26th.” Photo credit: Tom Totton.



“I’m not sure, Tim. The edge still looks turned to me.”
Photo credit: Tom Totton.

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August 2021

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7 CACHUMA LAKE 8 PM
8 NEW MOON	9	10	11 CARPINTERIA STATE BEACH 8 PM	12 PRE-DAWN PERSEIDS	13	14 LOPEZ LAKE 8:30 PM
15 FIRST QUARTER	16	17	18	19	20	21 CARPINTERIA STATE BEACH 8 PM
22 FULL MOON	23	24	25	26	27	28 CACHUMA LAKE 8 PM
29	30 LAST QUARTER	31				