

November 2021

Sponsored by the Santa Barbara Museum of Natural History



Looking back at an Astronomy Day at the Camino Real Marketplace. Photo credit: Tom Totton.

OUTREACH SUMMARY

There was minimal outreach in October. 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The SBAU radio hour has been replaced by a weekly Zoom/YouTube Live event every Monday at 11 AM.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: <<u>https://tinyurl.com/2vss2yam</u>>

For November, there will be no in-person SBAU meetings or public telescope outreach.

Although the Museum has opened for a limited set of activities, star parties and club meetings are as yet too contact-intensive. But don't forget the weekly Telescope Workshop Zoom, every Tuesday from 7:30 PM to 9 PM. Check <u>sbau.org</u> for the link.

The Sky for November

Start November by falling back - Daylight Saving Time ends at 2 AM on Sunday, November 7. The constellations of Autumn, along with Saturn and Jupiter, are setting earlier, but it's getting dark earlier, too. Venus continues to dazzle low in the SW as it races towards us in its orbit, and pairs up with the crescent Moon at sunset on November 7. The Andromeda Galaxy is well-placed nearly overhead, and the bright Winter constellations are rising to prominence.

On Wednesday evening, November 10, the nearly FQ Moon will lie between Saturn and Jupiter in the S. On Thursday, look for the Lunar X formed by newly illuminated crater rims along the terminator between about 2:15 PM PST and 4:50 PM PST.

The Moon will undergo a deep penumbral eclipse starting nearly overhead in Taurus, near the Pleiades, starting at 11:18 PM PST on November 18. Deepest eclipse, with 97% of the Moon in the Earth's umbra, will be at 01:03 AM PST November 19. A tiny sliver at the lunar southern pole will remain in the brighter penumbra. The umbra will exit the Moon at 02:47 AM PST.

The International Space Station will be making some nice visible evening passes between November 15 and November 24. Its orbit may change from time to time, so to get the latest and most complete predictions, visit Heavens Above <<u>https://tinyurl.com/y5yt22ch</u>>

FROM THE PRESIDENT Jerry Wilson

Fall is here, along with enough of a one day rain storm to get my hopes up for a non-drought year, but most importantly, I may actually be finishing one of my long-term projects. Several years ago, I acquired an 18-inch blank from Newport Glass Works and made a grinding tool of hexagonal ceramic tiles glued to three plywood disks.

The grinding was straightforward, but I had an injury to my left shoulder that made polishing and figuring the disk a very risky proposition. My left arm is now half as strong as my right, so that I could not reliably hold the disk. In fear of dropping it, I had it professionally completed and turned my attention to designing the rest of the telescope on MathCad and TurboCad.

The mirror ended up at f/3.9, which when combined with a coma corrector yields the desired f/4.5. My plans were to make it into an Astrograph on a permanent mounting.

The HOA L&A Committee approved my plans for a roll-off roof observatory in my back yard as part of a redesign of our back yard. Work in now in progress with an end date of Dec 1.

The telescope features a carbon fiber tube, secondary, and spider from AstroSystems, a 3-inch focuser from Optec, along with a custom-machined mirror mount and other hardware by Machine Arts and SB Hacker Space (here in town), support rings from Parallax Instrument, and an AP 1600 Equatorial Mount.

In the early stages of the scope's design, while attending an Advanced Imaging Conference in San Jose, I won a drawing held on the last day of the meeting, with the prize of a 3-inch diameter coma corrector. With the project now blessed by lady luck, a number of design options were made for me.

But there's always something. The design requires several 1/2-20 machine screws. No problem, right? Wrong. I need full threads. These are a custom design. Oh, well.

So, with this long-term project entering its final assembly, I think I can pretty well guarantee a stormy fall and winter season.



"Wait 'til I find the so-and-so who stuck gum on my seat!" Photo credit: Tom Totton.

ARTS CORNER

My Name Mark Strand

Once when the lawn was a golden green and the marbled moonlit trees rose like fresh memorials in the scented air, and the whole countryside pulsed with the chirr and murmur of insects, I lay in the grass, feeling the great distances open above me, and wondered what I would become and where I would find myself, and though I barely existed, I felt for an instant that the vast star-clustered sky was mine, and I heard my name as if for the first time, heard it the way one hears the wind or the rain, but faint and far off as though it belonged not to me but to the silence from which it had come and to which it would go.



"You know. When I was born, the universe was about <u>this</u> big!" Photo credit: Tom Totton.



"Three notes walk into a bar: a C, an E-flat and a G. The bartender says 'I'm sorry. You will all have to leave. We don't serve minors'." Photo credit: Tom Totton.



"Take my hand. I'm a stranger in paradise...." Photo credit: Tom Totton.



"This is the last time, little screw, that you are going to rattle around in there!" Photo credit: Tom Totton.

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SBMNH Astronomy Programs Manager VACANT

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AU annual membership rates: Single = \$20 Family = \$25

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The Astronomical Unit

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			November 2021							
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday					
1	2	3	4	5	6					
			NEW MOON							
8	9	10	11 FO Moon	12	13					
15	16	17	18 Deep Penumbral Eclipse	19 Full Moon	20					
22	23	24	25	26	27 LQ Moon					
29	30				<u> </u>					
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