



AU AstroNews

The Newsletter of the Astronomical Unit

June 2020

Sponsored by the Santa Barbara Museum of Natural History



Looking back and longing for when we can return: Jerry and Chuck kicking off a Friday General Meeting. Photo credit: Tom Totton.

JUNE GENERAL MEETING

Due to the COVID-19 Pandemic our club's June Potluck has been cancelled.

OUTREACH SUMMARY

Because of the ongoing pandemic, there was no public telescope outreach in May.

OUTREACH EVENTS

There are no public star parties or meetings scheduled for June. There will most likely be no astronomy gatherings for the rest 2020. Please stay safe and healthy.

The SBAU radio hour on KZSB 1290 AM at 9 AM on the second and fourth Monday of each month will continue as a phone-in show, thanks to the dedication of Baron Ron Herron.

Tim Crawford sends out occasional email updates about projects from the Telescope Workshop that are still in progress as individual efforts at home. If you want to be included, contact him at

tcrawf3@cox.net

Even though we can't enjoy our usual public outreach events, there's plenty to observe in our June sky if the marine layer behaves. The Summer

Triangle is back at reasonable hours, with our old friends Albireo, M13, the Ring Nebula, and the Dumbbell Nebula. Jupiter and Saturn have transitioned from our morning to late evening sky. Mars is growing brighter in the morning sky, getting ready for a good appearance in October. In the first week of June, Mercury is well positioned for viewing in the west just after sunset. Get out and find it - Copernicus never did. You won't see it, but on June 3, Venus is new, passing just a fifth of a degree from the solar limb. Every eight years, Venus very nearly repeats its position in the sky, so this is analogous to the Venus transits of the Sun we observed in June of 2004 and 2012, but barely missing the Sun. Venus will climb rapidly into the morning sky, and 30 minutes before sunrise on Friday, June 19, it will shine very near a thin crescent Moon in the east. Summer will officially start for our hemisphere with the Solstice on Saturday, June 20, at 2:44 PM PDT.



Tim helps folks with their equipment at a recent Tuesday Telescope Workshop. Photo credit: Tom Totton.

FROM THE PRESIDENT

Jerry Wilson

Our galaxy, the Milky Way, is now much larger than we thought a few years ago. At our outreach we quoted a diameter of 100,000 light years, with

our solar system a little over half way between the center and edge at about 30,000 light years. That's all changed. Not because of a sudden burst of expansion, but due to a redefinition and more sensitive measurements. The new diameter is 1.9 million light years, give or take 0.4 million, as reported in the March 23, 2020 *Science News*, by Ken Crosswell. Wikipedia has not yet caught up.

This larger diameter is gas and dark matter extending beyond the easier to measure bright part diameter. "To put that size into perspective, imagine a map in which the distance between the Sun and the Earth is just one inch. If the Milky Way's heart were at the center of the Earth, the galaxy's edge would be four times farther away than the Moon actually is."

The traditional "bright part" consists of a disk of stars, gas and dust, with a large central bulge, much like a fried egg, but much bigger. In the summer the central bulge is prominent in the south, in the constellations of Sagittarius and Scorpius. Six months later we are looking out at the thinner star clouds of the rim in Orion. The disk and bulge are made up of a fairly uniform distribution of stars, but viewing the Milky Way shows dark regions where the stars appear to be missing. One dark area that spans the region from Cygnus to Sagittarius is known as the Great Rift or Dark Rift. These are not missing stars, nor fluctuations in the normal fried egg pattern. They are clouds of gas and dust that do not emit or reflect light. They block our view.

E. E. Barnard photographed and mapped these dark nebulae around the turn of the Twentieth Century and published a limited edition book with stunning long exposure photographs of these objects. Needless to say, a first edition is rather expensive, though reproductions have been available from time to time.



"What do you mean you don't like my whistled version of Silent Night?" Photo credit: Tom Totton.



"Hey, Edgar. Can you help me find where I dropped my chewing gum?" Photo credit: Tom Totton.



"Whoa! Where is that bad breath coming from?" Photo credit: Tom Totton.



“That’s right. I got this neat t-shirt when I passed my Ph.D. orals.” Photo credit: Tom Totton.



“Wow! Who is the monkey at the bottom of this tube?” Photo credit: Tom Totton.

STARRY STARRY NIGHT

by Louis Jenkins

A bazillion stars overhead, and I look up as amazed and baffled as the first hominid who gazed upward must have been, stars passing overhead like a very slow-moving flock of birds, going somewhere, disappearing into the wee hours of the morning.

I used to be able to recognize some of the constellations: the Pleiades, the Big Dipper...but I have forgotten most.

Still, mankind has learned a lot about the cosmos since Galileo's time. A friend of mine said, "My wife bought me a telescope for my birthday, a nice one, very powerful, I've got it set up on the deck. You know, when you look at a star with your naked

eye all you see is a little white dot, but when you look at it through a telescope you see a bigger white dot."

AU Information Box

President: Jerry Wilson 968-4056
jerryawilsonphd@gmail.com

Vice President: Ron Herron
vicepresident@sbau.org

Secretary: Carol Moore
secretary@sbau.org

Treasurer: Colin Taylor 967-8140
dancingmagpie@cox.net

Equipment: Art Harris 968-4017
n6is@cox.net

Outreach: Chuck McPartlin 964-8201
outreach@sbau.org

Newsletter: Tom Whittemore 687-2025
kometes@aol.com

Webmaster: Tom Totton 562-8795
webmaster@sbau.org

Merch Manager: Pat McPartlin 964-8201
parsnip7@yahoo.com

SBMNH Astronomy Programs Manager

Javier Rivera 682-4711x173
jrivera@sbnature2.org

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 rates:

Single = \$20 Family = \$25

AU mailing address:

Astronomical Unit
 c/o Santa Barbara Museum of Natural History
 2559 Puesta Del Sol Road
 Santa Barbara, CA 93105-2998

On the Web: <http://www.sbau.org>

The Astronomical Unit

c/o Santa Barbara Museum of Natural History

2559 Puesta Del Sol Road

Santa Barbara, CA 93105-2998

June 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
7	8 TECH TALK KZSB (AM1290) 9-10 AM	9	10	11	12	13
14	15	16	17	18	19	20
21	22 TECH TALK KZSB (AM1290) 9-10 AM	23	24	25	26	27
28	29	30				