



AU AstroNews

The Newsletter of the Astronomical Unit

February 2019

Sponsored by the Santa Barbara Museum of Natural History



Jerry Wilson captured this wonderfully-spooky, black-and-white image of volunteers at a recent Bacara outreach.

FEBRUARY GENERAL MEETING

Our February speaker will be Roger Freedman from the UCSB Physics Department. The title of Roger's talk is "A Matter of Some Gravity: What Newton Never Knew About Gravitation."

Roger summarizes: "In this nontechnical talk (no equations!) I'll present some amazing discoveries about the surprising role of gravity in our universe. I'll show how gravitational forces "herd" objects in Saturn's rings, impart violent geological activity to some of Jupiter's moons, and have kept life on Earth from going extinct. I'll also describe how studying gravitation has allowed us to "hear" what happens when two dead stars plummet into each other.

Roger A. Freedman is a lecturer in physics at UCSB. He is the co-author of four textbooks in physics and astronomy that are used worldwide. In the 1970s Dr. Freedman worked as a comic book letterer and helped organize the San Diego Comic-Con (now the world's largest popular culture convention) during its first few years. He also holds a commercial pilot's license and is the advisor to UCSB Men and Women's Rowing.

OUTREACH SUMMARY

Since the last newsletter, AU volunteers Farshad Barman, Tim Crawford, Joe Doyle, John Edkins, Tessa Flanagan & Duff Kennedy, Ruben Gutierrez, Art Harris, Ken Kihlstrom, Isabel Kosic, Jessica MacFarlane, Pat & Chuck McPartlin, Janet & Martin Meza, Melissa Moors, Bonnie & Bruce Murdock, Edgar Ocampo, Peggy O'Rork, Javier Rivera, Diane & Russell Ruiz, David Salvia, Tom Totton, Matthew Walton, Tom Whittemore, Pat & Jerry Wilson, and Andre Yew showed cool things in the sky to 824 viewers.

FEBRUARY OUTREACH

Here's the schedule so far for February. Remember, the events are subject to change and cancellation, so for the latest updates, contact Chuck at 964-8201 or macpuzl@west.net.

The Telescope Workshop meets on Tuesday evenings (except the second Tuesday) at 7:30 PM at the Broder Building at SBMNH. Contact Tim Crawford at tcrawf3@cox.net for information. Listen to the AU on the radio at KZSB 1290 AM at 9 AM on the second and fourth Monday of each month.

FRIDAY, FEBRUARY 1, 7 PM

Catch a quick planetarium show, followed by our monthly meeting at 7:30 in Farrand Hall at SBMNH. Dr. Roger Freedman of UCSB will speak about gravity.

TUESDAY, FEBRUARY 5, SETUP 5:30 PM

Telescopes for a Boy Scout troop at Westmont's Keck Observatory.

WEDNESDAY, FEBRUARY 6, SETUP 5 PM

Telescopes for Science Night at Adams School, at 2701 Las Positas Road in Santa Barbara. We get access to the playground setup area through a road just south of the auditorium.

THURSDAY, FEBRUARY 7, SETUP 5 PM

Telescopes for an Astronomy Night at Ventura Charter School, 2060 Cameron Street. We'll set up on the playground behind the school.

SATURDAY, FEBRUARY 9, 5 PM

Monthly AU planning meeting in the classroom outside Javier's office at SBMNH.

SATURDAY, FEBRUARY 9, 7 PM

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

TUESDAY, FEBRUARY 12, 7 PM

Telescope Tuesday at the Camino Real Marketplace in Goleta. We set up in the plaza by the theater.

WEDNESDAY, FEBRUARY 13, SETUP 5 PM

Telescopes for NUTS (Night Under The Stars) at Santa Ynez Elementary School, 3525 Pine Street in Santa Ynez. This is the campus on the western edge of the school complex. We set up in their central plaza. Dinner provided for volunteers.

FRIDAY, FEBRUARY 15, 7 PM

Monthly Westmont Public Telescope Night at their observatory by the baseball field.

SATURDAY, FEBRUARY 16, SETUP 6 PM

Telescopes for UCSB students on the lawn by the Santa Cruz Residence Hall. Let Chuck know if you're planning to come, so he can arrange parking permits.

SUNDAY, FEBRUARY 17, SETUP 6 PM

Telescopes for Bacara Resort and Spa. We set up on the bluff by the Angel Oak Restaurant.

THURSDAY, FEBRUARY 21, SETUP 5 PM

Telescopes for a science night at Canalino School, 1480 Linden Avenue in Carpinteria.

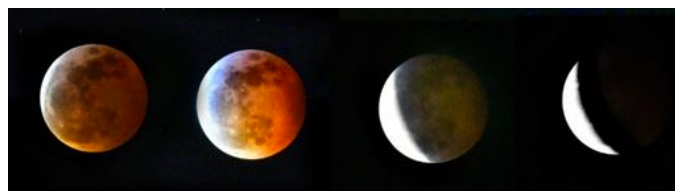


Photo collage of the recent lunar eclipse by Bruce Murdock.

MONDAY, FEBRUARY 25, SETUP 5:30 PM

Telescopes for a science night at Coastline Christian Academy, on the NE side of the intersection of Cathedral Oaks and Fairview in Goleta.

TUESDAY, FEBRUARY 26, SETUP 5:30 PM

Telescopes for an Astronomy Night at Santa Ynez Valley Charter School, 3525 Pine Street in Santa Ynez. This is the campus on the eastern side – the one toward the west is Santa Ynez Elementary.

WEDNESDAY, FEBRUARY 27, SETUP 6 PM

Telescopes for an astronomy night at Goleta Valley Junior High School, at 6100 Stow Canyon Road. We set up on the playground blacktop on the west side of campus.

THURSDAY, FEBRUARY 28, SETUP 4:30 PM

Telescopes for Ellwood Elementary School's Science Night. They're at 7686 Hollister Avenue in Goleta. We set up on the blacktop out back.

From the President

Jerry Wilson

Recently some friends and I were talking about reasons to buy an electric car like a Tesla. One reason voiced was “to save the Earth.” I know that’s an idiom used to address the reversal of global warming, but it also struck me as an odd way of saying it. The Earth does not need saving!

Mother Earth has been much hotter than it is now and has been much colder than now. In fact, it’s been molten and at a later time earned the name “Snowball Earth.” The Earth still rolls around its orbit no matter what the climate is. The issue is that we live on the Earth as the pinnacle of a food chain. We are not isolated from all the lesser creatures and life forms that share our planet. We depend on them. If they die, we die. We and our way of life need saving.

More important than our changing the climate is the rate at which we are changing it. We have more than doubled the amount of CO₂ in our atmosphere in the past hundred years. Except for the climate change brought on by the Chicxulub impact 65 million years ago we are now in an unprecedentedly rapid change. So, what about our food chain? Can it adjust to rapid changes in climate?

Well, that depends on how rapid. We are going to have significant changes in a plethora of life supporting parameters. These include ocean temperature, acidity, level, air temperature, rainfall patterns, etc. - life needs to evolve to adapt. Evolution rate is measured in generations. If it takes a thousand generations to so adapt, humans with their 20-year generations will require 200,000 years. We can probably adapt through our technology, but many higher plants and animals will not. Somewhere below us on the food chain is a line where creatures can squeeze in however many generations they need to adapt. We need to reverse CO₂ accumulation in our atmosphere. Remember, Venusians did not take the threat seriously.



“An alien, a priest and an astronomer walk into a bar...”
Photo credit: Tom Totton.



Tom Totton teaches the public about the night sky at the lunar eclipse. Photo credit: Bruce Murdock.

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The Astronomical Unit

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February 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1 GENERAL MEETING 7PM	2
3	4	5 WESTMONT COLLEGE 5:30PM	6 ADAMS SCHOOL 5PM	7 VENTURA CHARTER SCHOOL 5PM	8	9 PLANNING MEETING 5PM STAR PARTY 7PM SBMNH
10	11 TECH TALK KZSB (AM 1290) 9-10 AM	12 CAMINO REAL MARKETPLACE 7PM	13 SANTA YNEZ ELEMENTARY 5PM	14	15 WESTMONT COLLEGE 7PM	16 SANTA CRUZ RESIDENCE HALL 6PM
17 BACARA RESORT AND SPA 6PM	18	19	20	21 CANALINO SCHOOL 5PM	22	23
24	11 TECH TALK 9-10 AM COASTLINE 5:30 PM	26 SY VALLEY CHARTER 5:30PM	27 GOLETA VALLEY JHS 6PM	28 ELLWOOD ELEMENTARY 4:30PM		