Berkeley Public Library
Weekly Sky Report
December 22 - December 28, 2019

The Planets

Venus has returned to our night sky just after sunset, and will be around as the Evening Star for the next eight months or so. It has replaced Jupiter as the brightest object in our western sky, and it will appear higher each night over the next four months.

Constellations

Orion and the rest of the winter constellations are starting their winter stroll across our south eastern Berkeley skies after 8:30pm. **Taurus** with the V of its horns, is leading the pack as he backs away from Orion and his sword. The **Gemini** twins are watching the action just above Orion, while that big dog, **Canis Major**, with its glowing **Dog Star** nose **Sirius**, is at Orion's feet. Checkout our **telescope from the Central Library** and look for the famous **nebula** in the middle of Orion's sword sheath hanging from the three stars of his belt.

Planetarium

On rainy nights like these, it's good to know you can still go to the Lawrence Hall of Science for their programs like "Imagine the Sky Tonight", which has holiday hours. Check their site:

lawrencehallofscience.org

Starlink

The second batch of Starlink satellites passes over Berkeley on Friday evening. You can watch more than 40 of this constellation of lights pass in the course of a little more than 10 minutes. These satellites will eventually end up in higher orbit and will not be any more visible than the hundred and more satellites, rocket bodies, and UFOs that you can see on any given night. In fact, Elon Musk has responded to the concern of astronomers by saying that he will try to make future Starlinks less reflective. This batch, however, is still shiny and close together and at a great evening time and altitude.

Dec. 22, 5:50pm-6:00pm Mostly from South West to North East, rising from the horizon to about 60-70°, then disappearing into the Earth's shadow.

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Central Library
2090 Kittredge Street
Berkeley, CA 94704
Phone: 510-981-6100
Fax: 510-981-6111

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Please refrain from wearing scented products to public programs.

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Recommended

Mars is a two season series that ran on the National Geographic channel and is now available through the Library as a DVD. It is an intriguing mix of documentary and science fiction. Though a bit uneven, the premise is realistic enough. It is set more or less in our present day with scientists and people like Elon Musk describing the challenges and rewards of venturing to Mars. Then we flash forward to 2033 when the actual first mission takes place. The action begins with a near catastrophic first landing by humans on the red planet. The crew is in a precarious position, with help some 200 million miles away. The show has the gritty realism of that other great series, The Expanse, which is just entering its fourth season; the first three series are also available at Berkeley Public Library as well as the original novels by James S. A. Corey. The Expanse sets Mars as a military power at odds with Earth. There are colonies on the outer planets and on the asteroid belt, whose inhabitants are known as belters. And then there are the aliens…

DVD Feature Mars Season 1 & 2

DVD Feature Expanse Series 1-3

Much of the information for this report comes from the wonderful web site, Heavens Above. You can enter your home city location and bookmark it for easy access: http://www.heavens-above.com. Other sources include: http://www.space.com and http://www.nasa.gov. And check spacex.com for launches.

Recommended

Berkeley Public Library has dozens of wonderful astronomy films available through our **Kanopy streaming video collection**. There are **Great Courses** such as Observing the Invisible Universe; The Remarkable Science of Ancient Astronomy; The History and Achievements of the Islamic Golden Age; Radio Astronomy; Life in Our Universe. You can learn about astronomers of the past by watching films like Galileo: On the Shoulders of Giants, or follow the story of our modern-day explorers like Sepideh - An Iranian Teenager's Dream to Become an Astronaut.

Our **Kanopy Kids** site also has some great astronomy related films. There are titles like How Come the Moon has Craters; A Kid's Guide to Mars; Just the Right Distance From the Sun; How We Found Your Sun; More Than One Moon; Tour of the Solar System; Earth and Space - For Kindergarten - 3rd Grade; Telescope and Spaceship (2 episodes of Wibbly Pig); Franklin in the Stars; Little Bear Goes to the Moon; and an animated film about the young Carl Sagan called Star Stuff. Explore the exciting universe of Berkeley Public Library's Kanopy collection!

This **Sky Report** is brought to you by Berkeley Public Library's Cornerstones of Science, which is funded in part by the Silberstein Foundation. Cornerstones of Science is part of a multi-library initiative to bring STEM (Science, Technology, Engineering and Math) programming to patrons.

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