

Berkeley Public Library Weekly Sky Report January 2 - January 8, 2022

Planets & Moon

Jupiter, Saturn and Venus are almost equidistant from each other as they follow the Sun into the west. Saturn is less dazzling than Venus and Jupiter, but you can spot it in the middle about hand's width to either side of its brilliant companions. Jupiter and Saturn are both hanging out in the neighborhood of the constellation Capricorn; Venus is the brightest of the three and has moved to the left of Sagittarius. It will soon be leaving behind its **Evening Star** guise before its wardrobe change into the Morning Star. Meanwhile, Mercury is rising in the western evening sky and may be visible as a pale dot just to the south (left) of Venus. It will add to the string of pearly planets and in the next couple of weeks reach almost as high as Saturn before it starts its swing back towards the morning and disappears into Sun's glare. If you want to check off another planet, **Mars** is low in the south east above the Berkeley hills just before sunrise.

Space Telescopes

The James Webb Space Telescope is about halfway to its destination, which is close to a million miles from Earth. So far it has passed all of its tests with flying (at almost a half a mile a second) colors. This week it will be extending its secondary and primary mirror segments. You can watch the progress of the mission as it (literally) unfolds on NASA's website <u>nasa.gov</u>. Considering the delicate nature of the equipment, the telescope even has readings for temperatures on both sides of the heat shield, which varies right now almost 300°. There is a detailed description of the goals of this ambitious mission and all the latest news.

Constellations

The winter constellations are back! **Orion** is rising from his daybed in the Berkeley Hills just after sunset and his bright-eyed big dog **Canis Majoris** is just to the south east of Orion's feet. Sirius, the Dog Star, is the glowing eye of the Dog and is the brightest star in the night sky. This is because it is one of the closest stars to us and getting closer. It will be our shiniest neighborhood star (besides the Sun) for the next 210,000 years or so, or at least until another star like Orion's Betelgeuse gets all hot and bothered and explodes into a super nova that will be visible for us even in the daytime. Other constellations to look for are the **Gemini Twins**, **Castor** and **Pollux** just above Orion and the lovely lion **Leo**, which rises just after 9 pm almost due east.



Central Library

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Telescopes @ Berkeley Public Library!

We have 5 Orion StarBlast Astro Reflector Telescopes that you can borrow! Each BPL Branch

has a telescope, which may be borrowed for 1 week. Place a hold on it and then pick it up from your branch when it is ready. It is fairly easy to carry at 13 lbs., and stands about 2 feet tall.

Here's what you get:

"A great compact grab-and-go telescope designed for entry-level and intermediate astronomy enthusiasts. Substantial 4.5" aperture and fast f/4 focal ratio provides bright, detailed views of solar system targets like the Moon and planets, as well as wide-field celestial objects like nebulas and star clusters."



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: <u>http://www.heavens-above.com</u>. Other stellar sources include: <u>http://www.space.com</u> and <u>http://www.nasa.gov</u>. And check <u>spacex.com</u> for launches.

Recommended

The Hubble Space Telescope was launched in 1990 and BPL has many books, movies, and online resources to learn about its mission. Hopefully, the James Webb Space Telescope will soon be adding revelations for new library material!

Experiencing Hubble: Exploring the Milky Way (2020). DVD 523.113 Experiencing

The Hubble Space Telescope: Our Eye on the Universe by Terence Dickinson (2019). J 522.29 Dickinson

Hubble Space Telescope: Photographing the Universe by John Hamilton (2018). Hoopla

Cosmic Dawn : The Search for the First Stars and Galaxies by George Rhee (2013). 523.12 R3401c

This **Sky Report** is brought to you by Berkeley Public Library's <u>Cornerstones of Science</u>, 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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