

WEEKLY SKY REPORT

December 31, 2023 – January 6, 2024

PLANETS

Venus rises just after 5 a.m. as the Morning Star and is visible high in the east until it gets lost in the glare of the sunrise; it is, in fact, still visible after 6 a.m. Mercury and Mars are not far from Venus, but still too close to the sun to see. Saturn is hovering above San Francisco as it gets dark with Jupiter about halfway across the southern sky at 8:00 p.m.

SATELLITES

The BlueWalker 3 satellite is a prototype for a next generation communications system. Essentially, it would turn cell phones into satellite phones capable of calling from remote areas. Astronomers are concerned that this type of satellite will add to the light pollution, which they already see as a problem. Compared with SpaceX's Starlink satellites, which are the size of a refrigerator, the BlueWalker 3 is a giant, measuring 693 square feet and is considered the brightest satellite in orbit. You can judge for yourself with these passes visible from Berkeley this week:

Jan. 2 6:56pm North West, Altitude 20°; 6:59pm South West, Altitude 70°; Magnitude 2.0

Jan. 3 6:33pm North West, Altitude 20°; 6:36pm South West, Altitude 72°; Magnitude 2.1

Jan. 4 6:10pm North West, Altitude 20°; 6:13pm South West, Altitude 74°; Magnitude 2.1

Jan. 5 5:47pm North West, Altitude 20°; 5:50pm South West, Altitude 76°; Magnitude 2.1

LAUNCHES

The next Starship booster is on the launch pad in Texas; the Starship itself is being tested not far away. You can watch the largest, most powerful rocket ever launched as it gets ready for the next test flight by searching for videos: spacex boca chica. SpaceX has been testing the engines of the booster and Starship and they have just installed a giant sign on the side of one of their buildings: GATEWAY TO MARS

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

Binoculars @ Berkeley Public Library!

Thanks to a generous donation from the Cal Falcons program, we have 9 Vortex-Raptor binocular kits that you can put on hold and pick up at the location of your choice.

Here's what you get:

Porro prism performance in a mid-size, wide-angle design, the Raptors deliver a bright, crisp image with excellent color fidelity - even in low light conditions. With a wide range of interpupillary distance, they can easily be adjusted to fit anyone in the family, making them ideal for serious, hard-core youth hunters. The kit comes with a copy of The Sibley Field Guide to Birds of Western America and a pocket guide to local birds of the SF Bay Area. But it is also great for looking at planets, the moon and the stars!

