Berkeley Public Library
Weekly Sky Report
August 5 – August 11, 2018

The Planets

This is a great time to check out one of the two **telescopes from Central Library**. However, even without a telescope, you can enjoy our lovely solar system. Three of our neighboring planets are about as close as they get to us. **Mars**, with its mysterious methane, intriguing organic material, underground lakes, and giant dust storms, is peaking over the south Berkeley Hills just after 9pm. With its planet-wide dust storms, Mars is now a gorgeous ruby red jewel in the sky. Last Tuesday marked its closest approach to Earth since 2003. That was the year when Mars was the nearest to us it had been in almost 60,000 years! It is just about as close as that, and even now the red planet is shining brighter than the gas giant Jupiter. **Jupiter** and **Saturn** have also recently passed opposition, so they are at their best for viewing. If you get a chance to see Saturn through a telescope, the rings are now tilted for a great sight of their topside. In relation to Earth, the rings seem to wobble around over time and, when seen edge-on as Galileo was the first to do, can appear to disappear altogether. And don't forget to look in the western sky for the incandescent Evening Star, **Venus**.

Rocket Launches

The **Parker Solar Probe** is set to launch on Sunday to the Sun. The mission is to fly through the Sun's upper atmosphere, the corona, and study the solar wind, among other goals. This will be the closest any craft has ventured to touch the Sun.

Aug. 11, 12:48am Launch from Cape Canaveral, Florida Early but important launch!

Space Stations

The International Space Station is making some great passes over Berkeley this week.

Aug. 6, 10:15pm West North West; 10:16pm West South West, Altitude 43°, Magnitude -2.9

Aug. 7, 9:23pm North West; 9:25pm North East, Altitude 81°, Magnitude -3.9

Aug. 9, 9:15pm West North West; 9:17pm South West, Altitude 35°, Magnitude -2.6

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Meteor Showers

The Perseid meteor shower is one of the best of the year. This year, Earth passes through this debris field between July 23 and August 20. That's a lot of debris, and during it's peak, you should see shooting stars even in Berkeley. The Perseids are, in essence, like the contrail of a jet that stretches out behind it. We are passing through the thin trail of Comet Swift-Tuttle, which has looped around its own orbit many times. Earth encounters this trail in the same place every year, at the same angle, and so the trail of potential meteors seems to emanate from the same part of the sky. This spot is where we see the constellation Perseid, hence, the name of the meteor shower.

Much of the information for this report comes fro m 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 Reading

We are coming up on the 50th anniversary of the Apollo moon landings. This amazing achievement is humbling when we consider that no one has set foot on the moon since those missions. It is only now that we are approaching that territory again with the efforts of SpaceX and Elon Musk's stated goal to send a couple of travelers around the moon in the next few years. Because of the effects of tidal locking, we only see one side of the moon; before Apollo, no human had laid eyes on this scene. Today, only six astronauts are still living who walked on the moon and only four of the pilots who stayed in orbit. Thus, only ten remain who have seen the far side of the moon.

Here is a wonderful new book about the first three humans to venture to the moon. The launch was on the heals of the fire that killed the crew of Apollo 1 and the giant Saturn 5 rocket remained unproven. Fifty years later, their story remains exhilarating.

Rocket men : the daring odyssey of Apollo 8 and the astronauts who made man's first journey to the moon. By Robert Kurson.

629.454 Kurson

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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