



The Observer

February 2018 (#43)

Schedule of public programs on last page!

SUPER SUNRISE BLUE BLOOD MOON! (OR, WEDNESDAY'S LUNAR ECLIPSE)

There will be an eclipse of the moon on Wednesday morning (January 31). The “umbral” portion of the eclipse—the most noticeable part, where the moon is in the darkest portion, or “umbra” of Earth’s shadow—begins at 6:48 AM, right when many people are headed to work and school. The weather forecast for Wednesday is “iffy”—the eclipse could be clouded out.

But, let us hope the eclipse is not clouded out. There are a number of superlatives associated with this eclipse. First, it occurs when the moon is near the point in its orbit where it is closest to Earth, so the moon will appear a little larger than usual—a “super moon”. Except, the previous full moon was also “super”, and the next full moon will be “super” as well, so you might not really notice too much.

Second, this eclipse occurs during the second full moon in January. Since the time from one full moon to the next is 30 days, it is rare to have two full moons in one month, and the second full moon is called a “blue moon” (as in, “once in a blue moon”). Another interesting thing is that, because this full moon occurs on January 31 and there will be 30 days until the next full moon, there will be no full moon in



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February at all. That only happens once every 20 years or so.

Third, recently lunar eclipses have acquired the name “blood moon”. This idea seems to have really caught on sometime in 2014. Google searches, when restricted to dates prior to 2014, for the term “blood moon” show few references to lunar eclipses as “blood moons”, but when the restriction includes 2014 the number of references to lunar eclipses as “blood moons” seems to soar. Apparently someone got the idea that more people would pay attention to lunar eclipses if they had a dramatic name, and the term spread on the Internet. “Blood moon” is a silly term, but since this is also a blue moon, then Wednesday’s eclipse must be a “blue blood moon”.

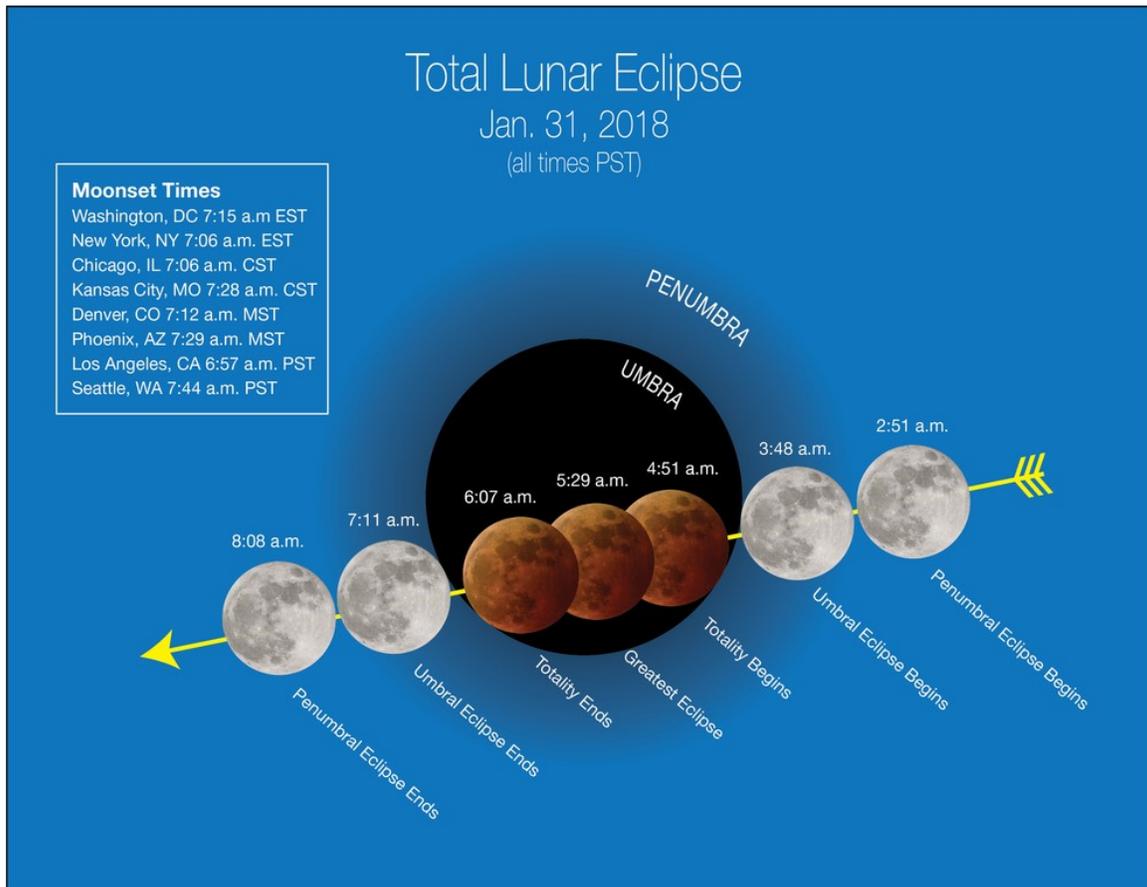
Add in the other superlatives, and Wednesday’s lunar eclipse is a ***Super Sunrise Blue Blood Moon!***



www.shootingstarlogbook.com

The “umbral” portion of the eclipse will begin at 6:48 AM, although it may be a few minutes more before you note the “bite” out of the edge of the moon. The moon will be low in the western sky. The eclipse will progress, with more and more of the moon being eclipsed, until the moon sets—at 7:50 AM in Louisville. The sun rises at the same time as the moon sets. This makes sense, since in a lunar eclipse

the moon is in Earth's shadow, so it must be exactly opposite the sun in the sky. It will probably look something like the photo on the previous page, but perhaps with a smaller "bite" taken out of the moon. The Pacific coast will get to see more of the eclipse, which is why this graphic from NASA shows everything in Pacific Time (just add 3 hours for Eastern Time). Enjoy the show, if the weather holds!

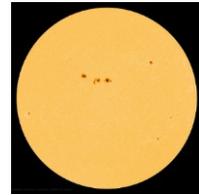


www.nasa.gov/feature/super-blue-blood-moon-coming-jan-31

UPCOMING PROGRAMS AT THE OBSERVATORY

ALL TIMES ARE EASTERN TIME. ALL PROGRAMS ARE HELD AT THE SOUTH HARRISON PARK LOCATION. PROGRAMS WILL BE CANCELLED IN THE CASE OF HAZARDOUS CONDITIONS SUCH AS SEVERE WEATHER OR SNOWY OR ICY ROADS.

- **February 10, 2018 (daytime program).** *Program begins at 10:00 am.* Come observe the sun through a safe solar filter, and learn about the sun, the seasons, and time—weather permitting. The observatory will be open rain or shine, but what we will be able to see depends on the weather.



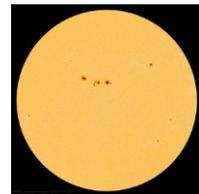
- **February 24, 2018 (evening program).** *Program begins at dark (approximately 7:00 pm).* Come observe the moon and stars—weather permitting. The observatory will be open rain or shine, but what we will be able to see depends on the weather.



- **March 24, 2018 (evening program).** *Program begins at dark (approximately 8:15 pm).* Come observe the moon and stars—weather permitting. The observatory will be open rain or shine, but what we will be able to see depends on the weather.



- **April 7, 2018 (daytime program).** *Program begins at 10:00 am.* Come observe the sun through a safe solar filter, and learn about the sun, the seasons, and time—weather permitting. The observatory will be open rain or shine, but what we will be able to see depends on the weather.



- **April 28, 2018 (twilight program).** *Program begins just before sunset (at approximately 8:20 pm).* Come observe the sun going down and the full moon coming up—weather permitting. The observatory will be open rain or shine, but what we will be able to see depends on the weather.

