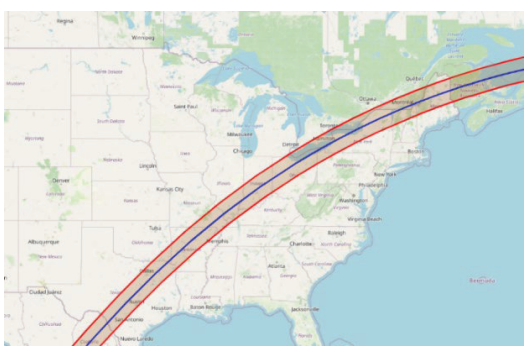
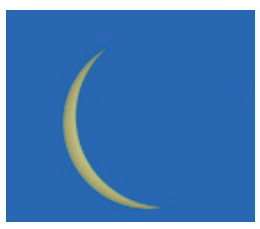
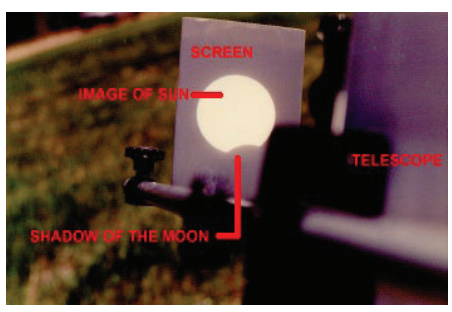
WHAT'S UP?

Hello, again. This installment of *What's Up?* is mainly a friendly reminder about the solar eclipse happening on Monday. You can find a map of the ground-path of the eclipse here: https://eclipse2024.org/eclipse_cities/statemap.html. Anywhere between the red lines will experience totality. Sites along the blue line will experience the longest times of totality. For this eclipse that will be upwards of four minutes in places. I've included the map here, but if you go to the website, you can zoom in and get more specific information. I understand that it is a weekday. That means it's also a workday and a school day, and that means that, realistically, many people just won't be able to make it work to get into the path of totality. From here, at the peak of the eclipse, the New Moon will cover about 92% of the Sun. It will look something like this picture. It's still worth noting as it is happening. *However*, if you **can** get yourself into the path of totality – where you can see the Sun 100% eclipsed, I can't recommend it enough that you do so! It is an experience of a lifetime! If you are going to travel to see totality, leave early. Unlike the 2017 total eclipse, this one has had a lot of advance advertising to the general public. If you stay in this area, the eclipse begins at 2:16 p.m., reaches its greatest extent (92% coverage of the Sun) at 3:30 p.m., and ends at 4:40 p.m. If you take any pictures, please send them to me with your permission to print them and I'll put together an article featuring them.

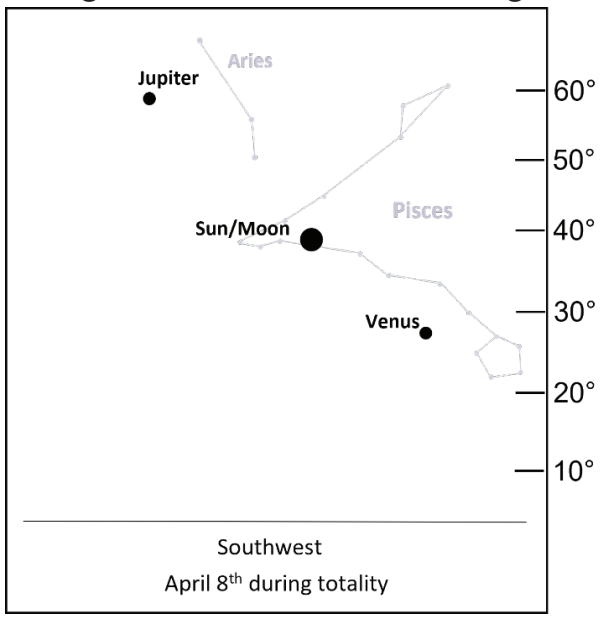




Wherever you are during the eclipse, if you want to view it, you must do it safely! During all of the eclipse except for the few minutes of totality, you *must only look through a filter!* Special "eclipse glasses" are needed if you are going to look up at the Sun. These are carboard glasses that have a piece of aluminized mylar over the eyeholes. These glasses block 99.999% of the Sun's light. Be sure that you buy from a reputable source. The website, https://eclipse2024.org/, has links to sources that have been approved by the American Astronomical Society. If you are using a telescope, or looking through someone else's telescope, there are two safe ways to do it. One is to have a solar filter *over the front* of the telescope. Do not look through a telescope that has a filter placed just before the eyepiece. These can crack from the heat of the sunlight and expose your eye to blinding light levels in an instant. Another way to use a telescope is to set it up to project the Sun's image onto a white card. A great equipment-free way to view is to go under a tree and look at the ground. Each little passageway through the leaves forms a pinhole camera that focusses the Sun onto the ground! During an eclipse, instead of circles, you'll see the partially eclipsed disc of the Sun.



Planet Roundup: I'll start with the Moon because it is one of the major players in the eclipse. If you haven't thought about it, at the time of the solar eclipse, the Moon is a New Moon. During a New Moon, the side facing us has no sunlight directly falling on it. It is awash with the light of the Full Earth (as seen from the Moon) but it still gets completely outshone by the bright Sun. So, the New Moon is on April 8th. The 1Q Moon is on the 15th, the Full Moon occurs on the 23rd, and the next 3Q Moon is on May 1st. For now, I'll just mention two of the planets – Venus and Jupiter. Normally, I'd be telling you that "Jupiter is now low in the west after sunset" and "Venus can be found in the east before dawn." On April 8th, you can see both of them at the same time and in the middle of the afternoon. IF you are in the path of totality! During the totality portion of the eclipse, it will be dark enough for these two bright planets to be seen. Venus will be about 20 degrees below and to the right of the Sun/Moon combination and Jupiter will be about 20 degrees above and to the left. If you can tear your gaze away from the sight of the eclipsed Sun for a moment, look for these two planets. Some of the brighter stars may also be visible.



You can email me at astroblog@comcast.net with any questions and comments. This is *What's Up?* installment #83.

Barry