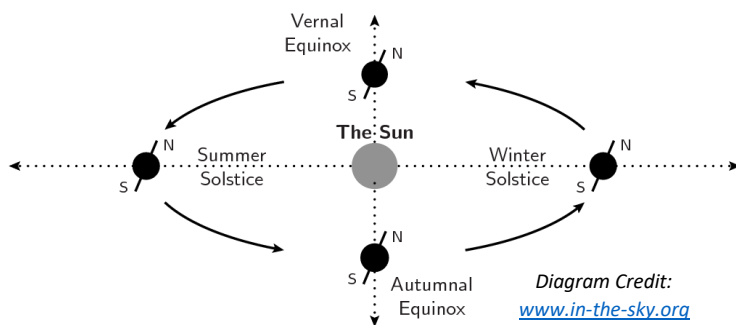


Before college-basketball, television, and electricity gave humans something else to do after sunset, there was comet hunting. Astronomers scoured the night sky searching for faint patches of light which move against the background of stars – **comets**! But 18th century French Astronomer **Charles Messier** was frustrated to find many patches of light which did NOT move; so between 1758 and 1781 he documented 103 of these fuzzy patches to prevent confusing them with comets. His list, the “Messier Catalog,” now contains a total of 110 objects; including 7 that he observed but didn’t originally list. At the time, he did not know that he was actually documenting 27 open clusters, 29 globular clusters, 10 nebulae, 40 galaxies, 1 supernova remnant, 1 Milky Way patch, 1 double star, and 1 asterism. Not bad for a 4 inch telescope in the 18th century!

Every March, ALL 110 Messier objects can be seen in one night – an event called a “Messier Marathon.” So brew some coffee, and let’s explore the March sky....

The Solar System, March 2019

The vernal equinox occurs at 5:58 pm EDT on March 20, 2019. On this first day of spring, the direct rays of the sun fall on the earth’s equator, and we experience 12 hours of daylight and 12 hours of darkness.



Also on March 20, the **moon** is **full** one day after reaching perigee (March 19), making it *almost* a Supermoon. The Farmer’s Almanac says that this 1st full-moon of spring has been called The Worm, Crow, or Sap Moon. The **new moon** is March 6.

You can find the planets this month by following the moon along its orbital path through the sky: it passes within 6° of **Mars** (in Aries) after sunset on March 11; then it passes within 2° of **Jupiter** (in Ophiuchus) in the early morning of March 26; and finally it passes less than 1° of **Saturn** (in Sagittarius) at dawn on March 29.

Stars and Deep Sky Objects, March 2019

There are several notable objects in and around the constellation **Cancer (the Crab)**, a dim triangle of stars riding high over the southern horizon in March. It can be found surrounded by its brighter and more famous neighbors: **Gemini** to the west, the head of **Hydra** to the south, and **Leo** to the east. (See map on back.)

- **The Beehive Cluster (M44)** is a large, bright, open cluster near the central star of Cancer, δ -Cancri. It is visible to the unaided eye and binoculars as a fuzzy patch of light; but with a telescope it resolves into dozens of stars, 600ly from earth.
- **M67** is a smaller open cluster near α -Cancri, 2600ly from earth. While most open clusters are in the plane of the Milky Way, M67 is so old (5 billion years!) that it has wandered 1500ly off the plane of the galaxy into the galactic halo above us. It is also visible with binoculars.
- **Medusa Nebula (Abell 21)** is an old, dim planetary nebula located near λ -Geminorum, best viewed at low power with an O3 filter. It is 1500ly away.
- **Intergalactic Wanderer (NGC 2419)** is a globular cluster 7° north of Castor in Lynx. It is so far away (270,000ly) that it was once thought to be a rogue cluster wandering between galaxies.
- **NGC 2775** is a distant spiral galaxy (64 million-ly) in Cancer, located behind the head of Hydra. It has an unusually large central bulge surrounded by a narrow spiral disc, and has been host to 5 supernova explosions in the past 30 years.

March Messier Madness (Marathon) 2019

The best nights for a Messier Marathon in 2019 are the weekends of March 9-10 and March 30-31. These dates will have the least interference from moonlight. You’ll need a clear and dark sky, a 360° unobstructed horizon, a telescope with low to medium power eyepieces, and a Messier Marathon Checklist* (a list of the objects in order of their occurrence in the sky from sunset to dawn). A pot of coffee, some healthy snacks, and a supportive (sympathetic?) family will also come in handy! Good luck!

*A good Messier Marathon checklist can be found online at: <http://saguaroastro.org/wp-content/sac-images/MessierMarathon/ArizonaMessierMarathonOrder.pdf>

The Solar System on March 15, 2019

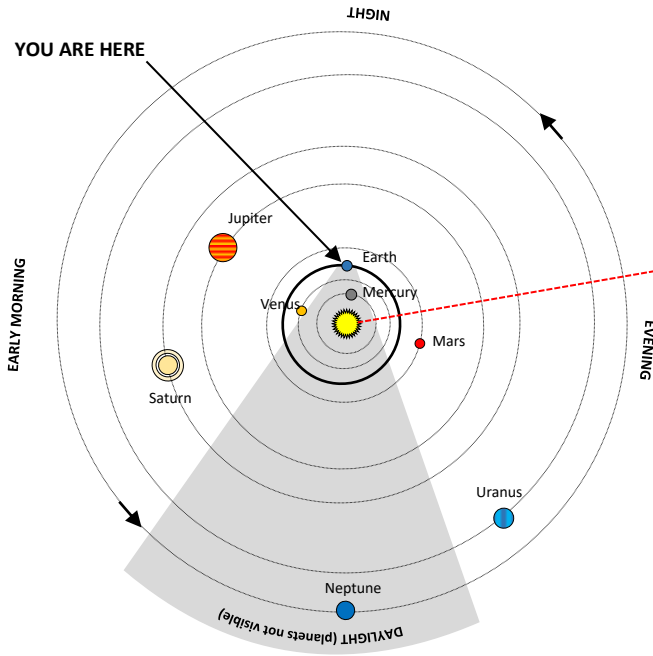


Diagram Credit: www.in-the-sky.org, Jim Feiste

The Milky Way on March 15, 2019

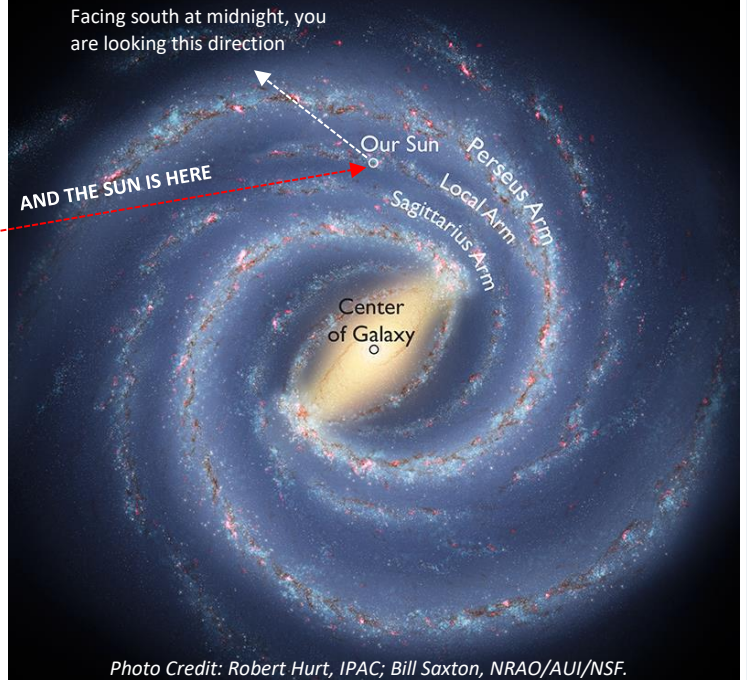


Photo Credit: Robert Hurt, IPAC; Bill Saxton, NRAO/AUI/NSF.

Stars and Deep Sky Objects: March 2019 (facing south)

Map Credit: SkySafari App

