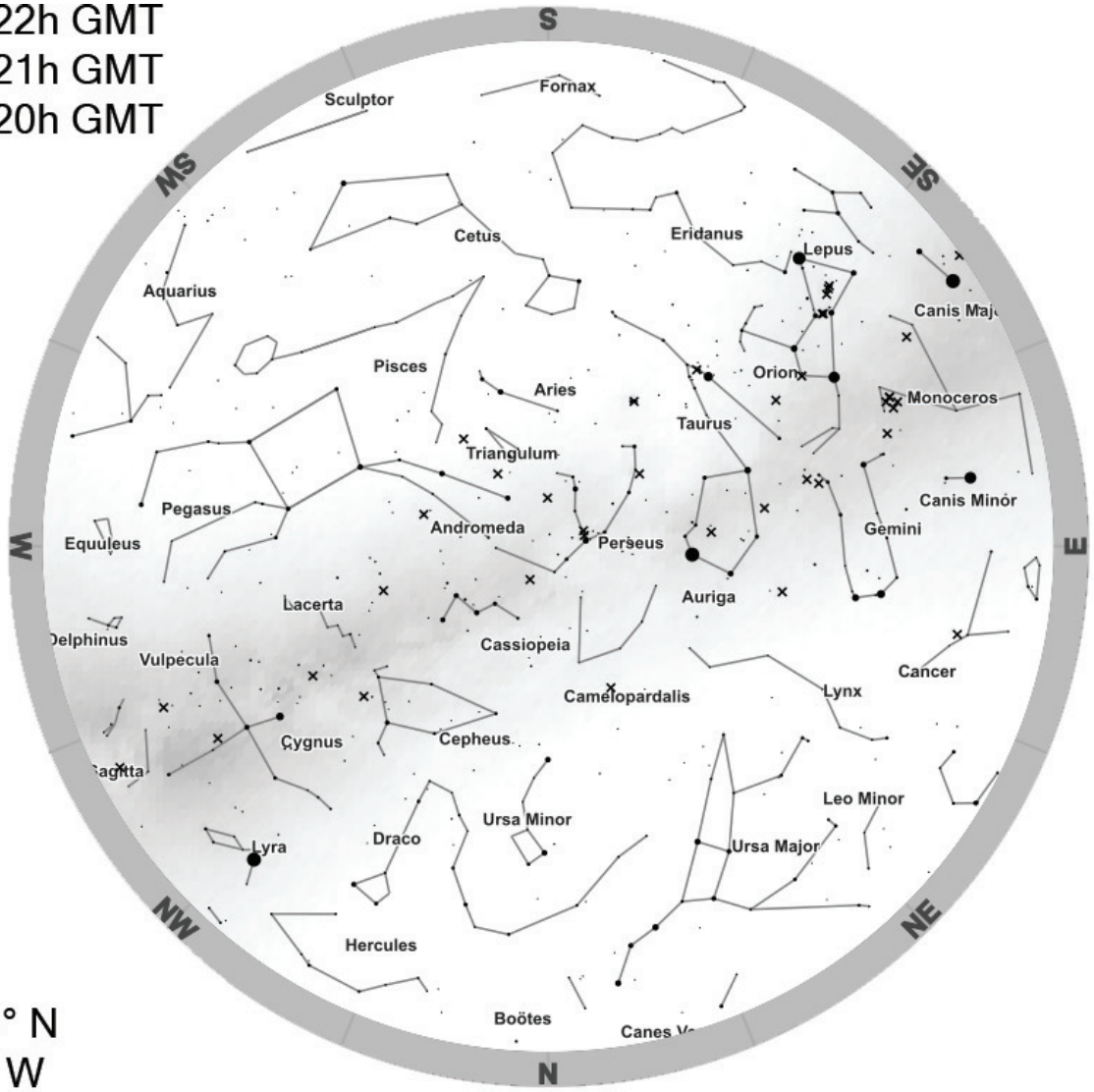
December Sky Notes 2020

01 Dec 22h GMT
15 Dec 21h GMT
30 Dec 20h GMT



Woking
51.3168° N
0.5600° W

Constellations

These constellations are well placed in the evening this month, but many more can be seen. Check the star map for more.

Orion moves across the southern sky, rising due east and setting due west. As it rises around sunset and sets around sunrise, it can be seen most of the night. Look for the 3 stars in a diagonal line that make up Orion's belt. On clear nights, the Orion nebula can just be seen below the belt.

Pegasus appears high in the south after sunset, but sets fairly quickly. Nevertheless, it is a good evening constellation to look for. Find it by the four brightest stars that for the Great Square of Pegasus.

Taurus precedes Orion in its precession across the southern sky. Look for its tuning fork shape and the bright star, Aldebaran, that forms the bull's eye. Keen eyed observers can spot the Pleiades or Seven Sisters on the constellation's edge.

Planets

Mercury is not visible this month, keeping below the horizon.

Venus appears low on the south eastern horizon just before dawn. It is best seen at the beginning of the month, when it is visible for about an hour. As the month continues, the time it is visible for decreases. Beware of the Sun!

Mars is visible from sunset, setting a little before dawn. It appears in the south eastern sky, and sets in the west, earlier each day. Mars will be in conjunction with the Moon on the 23rd.

Jupiter is elusive this month, setting just an hour after the Sun at the beginning. It sets earlier as time goes on, until at the end of the month it is no longer visible. Look for it in the south western sky. Jupiter will be in conjunction with the Moon on the 17th.

Saturn follows close behind Jupiter this month, only appearing just before sunset. At the beginning of the month it is visible for about an hour, setting earlier as the month continues. Look for it in the south western sky, a fainter object to the upper right of Jupiter.

Uranus is too faint to be seen with the naked eye, but a telescope or binoculars can pick it up. It appears in the south eastern sky after sunset, and continues to be visible until it sets a little before dawn in the west. It sets earlier as the month goes on.

Neptune is too faint to be seen with the naked eye, but a telescope or binoculars can pick it up. It can be seen in the south after sunset, moving to set in the west just after midnight at the beginning of the month. As the month continues, it sets earlier until it sets around 22:45 at then end of the month.

Meteor Showers

The φ-Cassiopeids reach their peak around the 5th. The radiant (origin point) is in the constellation of Andromeda, which is in the sky all night. Best displays are likely to be around 21:00, when Andromeda reaches its highest point in the sky.

The Monocerotids reach their peak around the 8th. The radiant (origin point) is in the constellation of Monoceros. Meteors will be visible after 18:46, when Monoceros rises above the horizon. Best displays are likely to be around 02:00, when it is highest in the sky. You will be able to see about 1 meteor per hour.

The σ-Hydrids reach their peak around the 11th. The radiant (origin point) is in the constellation of Hydra. Meteors will be visible after 20:52 when Hydra rises above the horizon. Best displays are likely to be around 03:00, when it reaches its highest point in the sky. You will be able to see about 1 meteor per hour.

The Geminids reach their peak on the night of the 13th. The radiant (origin point) of the meteors will be in the constellation of Gemini. It rises before sunset, so meteors will be visible all night. Best displays are likely to be around 02:00, when Gemini is at its highest in the sky. This is one of the biggest meteor showers of the year, and you will be able to see about 113 meteors per hour.

The Comae Berenicids reach their peak on the night of the 15th. The radiant (origin point) of the meteors is in the constellation of Leo. Meteors will be visible after about 22:22, when Leo rises above the horizon. Best displays will be just before dawn. You will be able to see about 2 meteors per hour.

The December Leonis Minorids reach their peak on the night of the 19th. The radiant (origin point) of the meteors is in the constellation of Leo Minor. Meteors will be visible after 19:39, when it rises above the horizon. Best displays are likely to be around 05:00, when Leo Minor is at its highest in the sky. You will be able to see about 4 meteors per hour.

The Ursids reach their peak around the 22nd. The radiant (origin point) will be in the constellation of Ursa Minor. Meteors will be visible all night, as it is circumpolar. Best displays are likely to be just before dawn. You will be able to see about 9 meteors per hour.

Moon

Last Quarter: 8th

New Moon: 14th

First Quarter: 21st

Full Moon: 30th

The Moon is at perigee, its closest point to the Earth, on the 12th, and apogee, its furthest point from the Earth on the 24th. This effect is not visually apparent.

The Moon is at perihelion, its closest point to the Sun, on the 15th, and aphelion, its furthest point from the Sun on the 29th. This effect is not visually apparent.

Points of Interest

Asteroid 16 Psyche reaches opposition on the 7th. Its radiant (origin point) is in the constellation of Taurus. It will be visible between 18:47 and 05:08, and best displays are likely to be around midnight when it reaches its highest point in the sky.

Comet **141P/ Machholz** is well placed this month, as it reaches perihelion on the 16th. It appears each night around 17:30, being visible for 15 minutes on the 1st. This interval increases as the month goes on, until it is in the sky for about an hour on the 31st. You will need a large telescope to see it.

The **Winter Solstice** occurs on the 21st. This will be the shortest day of the year in the northern hemisphere.

Visit https://spotthestation.nasa.gov/sightings/ to find out when the **ISS** will be visible from your location.

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