

Here is a list of some Astronomical events of 2017 to watch:

November 4 - Full Moon. The Moon will be located on the opposite side of the Earth as the Sun and its face will be fully illuminated. This phase occurs at 05:23 UTC. This full moon was known by early Native American tribes as the Full Beaver Moon because this was the time of year to set the beaver traps before the swamps and rivers froze. It has also been known as the Frosty Moon and the Hunter's Moon.

November 4, 5 - Taurids Meteor Shower. The Taurids is a long-running minor meteor shower producing only about 5-10 meteors per hour. It is unusual in that it consists of two separate streams. The shower runs annually from September 7 to December 10. It peaks this year on the the night of November 4. Unfortunately the glare from the full moon will block out all but the brightest meteors. If you are extremely patient, you may still be able to catch a few good ones. Best viewing will be just after midnight from a dark location far away from city lights.

November 13 - Conjunction of Venus and Jupiter. A spectacular conjunction of Venus and Jupiter will be visible in the evening sky. The two bright planets will be extremely close, appearing only 0.3 degrees apart. Look for this impressive pairing in the Eastern sky just before sunrise.

November 17, 18 - Leonids Meteor Shower. The Leonids is an average shower, producing up to 15 meteors per hour at its peak. This shower is unique in that it has a cyclonic peak about every 33 years where hundreds of meteors per hour can be seen. The shower runs annually from November 6-30. It peaks this year on the night of the 17th and morning of the 18th. The nearly new moon will not be a problem this year. Skies should be dark enough for what should be good show. Best viewing will be from a dark location after midnight.

November 18 - New Moon. The Moon will located on the same side of the Earth as the Sun and will not be visible in the night sky. This phase occurs at 11:42 UTC. This is the best time of the month to observe faint objects such as galaxies and star clusters because there is no moonlight to interfere.

November 24 - Mercury at Greatest Eastern Elongation. The planet Mercury reaches greatest eastern elongation of 22.0 degrees from the Sun. This is the best time to view Mercury since it will be at its highest point above the horizon in the evening sky. Look for the planet low in the western sky just after sunset.

December 3 - Full Moon, Supermoon. The Moon will be located on the opposite side of the Earth as the Sun and its face will be will be fully illuminated. This phase occurs at 15:47 UTC. This full moon was known by early Native American tribes as the Full Cold Moon because this is the time of year when the cold winter air settles in and the nights become long and dark. This moon has also been known as the Full Long Nights Moon and the Moon Before Yule. This is also the only supermoon for 2017. The Moon will be at its closest approach to the Earth and may look slightly larger and brighter than usual.

December 13, 14 - Geminids Meteor Shower. The Geminids is the king of the meteor showers. It is considered by many to be the best shower in the heavens, producing up to 120 multicolored meteors per hour at its peak. It is produced by debris left behind by an asteroid known as 3200 Phaethon, which was discovered in 1982. The shower runs annually from December 7-17. It peaks this year on the night of the 13th and morning of the 14th. he skies should still be dark enough for an excellent show. Best viewing will be from a dark location after midnight.

December 18 - New Moon. The Moon will located on the same side of the Earth as the Sun and will not be visible in the night sky. This phase occurs at 06:30 UTC. This is the best time of the month to observe faint objects such as galaxies and star clusters because there is no moonlight to interfere.

December 21 - December Solstice. The December solstice occurs at 16:28 UTC. The South Pole of the earth will be tilted toward the Sun, which will have reached its southernmost position in the sky and will be directly over the Tropic of Capricorn. This is the first day of winter (winter solstice) in the Northern Hemisphere and the first day of summer (summer solstice) in the Southern Hemisphere.

December 21, 22 - Ursids Meteor Shower. The Ursids is a minor meteor shower producing about 5-10 meteors per hour. It is produced by dust grains left behind by comet Tuttle. The shower runs annually from December 17-25. It peaks this year on the the night of the 21st and morning of the 22nd. The crescent moon will set early in the evening leaving dark skies for optimal observing. Best viewing will be just after midnight from a dark location far away from city lights.