

[Astronomy Things To See During November 2017 \(For UK Observers\)](#)

Moon:

Full:	4 th November 5:23am
Last Quarter:	10 th November 8:36pm
New:	18 th November 11:42am
First Quarter:	26 th November 5:03pm

The Lunar "X" and "V" are visible at around midnight GMT which is half an hour after the Moon sets so we can't observe them from the UK this month

Lunar conjunctions & occultations:

Note: When the Moon is waxing it is visible in the western sky after sunset. When near Full Moon it is visible most of the night. When it is waning, it is visible in the eastern sky before sunrise

5 th November	Waning Gibbous Moon lies close to the Hyades cluster
6 th November	Waning Gibbous Moon occults the Hyades cluster
7 th November	Waning Gibbous Moon lies close to Alhena
9 th November	Waning Gibbous Moon lies close to M44 the Beehive Cluster
11 th /12 th November	Waning Crescent Moon lies close to Regulus
15 th November	Waning Crescent Moon lies close to Mars & Spica
16 th November	Waning Crescent Moon lies close to Vesta, Jupiter & Venus
20 th /21 st November	Waxing Crescent Moon lies close to Saturn
22 nd November	Waxing Crescent Moon lies close to the Teaspoon asterism
25 th November	Waxing Crescent Moon lies close to Delta & Gamma Capricorni
26 th November	First Quarter Moon lies close to Neptune & Lambda Aquarii
30 th November	Waxing Gibbous Moon lies close to Uranus

Planetary Observations:

Mercury – during the last few day of November Mercury is visible in the west after sunset, located below Saturn. It reaches greatest eastern elongation on 23rd November. At mag -0.2 it will outshine its neighbour!

Venus – before dawn during the first half of November, you can see Venus in the south east at around 6am. Located within the much fainter stars of Virgo, it will unmistakable as it shines at mag -3.8. As it slips lower in the dawn twilight it passes very close to Jupiter, and on the 13th November it will at its closest to Jupiter, when the two will be just 15 arc minutes apart

Mars – located in Virgo, Mars is rising at 3:30am and will be at mag +1.7. On 30th November it passes close to the blue star Spica. See if you can see the stark colour difference between the two

Jupiter – located on the border of Virgo and Libra, Jupiter is now climbing higher in our dawn sky and by the end of November it will be rising at 5am. At mag -1.5 it will be easy to spot. Look for Jupiter lying very close to Venus on the morning on 13th November when the two will be just 15 arc minutes apart

Saturn – moving through Ophiuchus into Sagittarius, Saturn is visible very low in the west, setting at about 6pm. Although only at mag +0.6 this month, it is still a lovely sight through a small telescope. By the end of November it will be lost in the evening twilight.

Neptune – located in Aquarius, Neptune is visible after sunset and sets about half past midnight. At mag +7.9 you will need binoculars to observe it

Uranus – located in Pisces, Uranus is also visible after sunset but doesn't set until 3:30am. At mag +5.7 it is brighter than Neptune, but you will still need binoculars to observe it

Pluto – if you fancy a challenge, see if you can spot Pluto low in the west south west after sunset before it sets at around 7:30pm. At mag +14.3 you will need a large telescope to observe it

Ceres – located in Cancer, Ceres rises at about 9:30pm and then remains visible until dawn. At mag 7.5 you will need binoculars to spot it

Vesta – located in Virgo, Vesta lies above Jupiter in the predawn sky. It rises at about 5am and remains visible until sunrise. At mag +7.5 you will need binoculars to spot it

Other Observations:

Moon Occults the Hyades Cluster – overnight on 5th/6th November, the Waning Gibbous Moon occults several stars of the Hyades Cluster in Taurus. Starting at moonrise at around 6pm, this event lasts several hours. It finishes at 2:30am with the occultation of Aldebaran

Meteoric November! – there are several overlapping meteor showers during November. The Taurids shower has 2 radiants; one is near the Taurus-Aries border and this one peaks on 5th November. The 2nd Taurids radiant is close to M45 the Pleiades and this one peaks on 12th November. However, both showers have a wide duration of activity which lasts from 20th October – 30th November. Keep an eye open for meteors overnight on 17th/18th November as Earth passes through the main debris stream from Comet Tempel-Tuttle giving rise to the annual Leonids meteor shower. This year promises to be a good year for the Leonids as the Moon will be out of the way. It is also worth observing the night before the peak. This shower usually has a ZHR of around 10 meteors per hour. Also keep an eye out for Alpha Monocerotid meteors as this minor shower also peaks on 18th November. It usually has a ZHR of 5 meteors per hour but in the past has displayed short-lived huge outbursts of around 400 meteors per hour. Also make sure you are observing on 30th November/1st December as there may possibly be meteors caused by debris from 46P/Wirtanen. The best chance of seeing this is between 3am on 30th November and 6am GMT on 1st December. The radiant is northwest of delta Piscium

NEO 444584 Close Pass – this asteroid passes with 9 lunar distances of Earth on the evening of 17th November, as it passes through Aquila, with a short window of viewing between the sky becoming dark enough and the patch of sky becoming too low. The 400 metre lump of rock will be moving at 14.8 km per second! This object will only have a magnitude of +15 so CCD imaging will be the best way to capture it.

Binocular Tour – This month's Sky at Night Binocular Tour by Stephen Tonkin is focused on the sky around the border between Cassiopeia, Perseus and Camelopardalis. There are 4 targets for 10 x 50 binoculars. First is Kemble's Kite, an asterism containing 10 stars in the mag +8 range. Also is the stunning asterism Kemble's Cascade which is a chain of 15 stars with NGC 1502 at one end. Next is another chain of 8th magnitude stars, called Stock 2, the Muscle Man cluster, named because this asterism looks like a stick man flexing his muscles! Finally for 10 x 50 binoculars is another kite shape, this time the Queen's Kite. This asterism contains a variety of star colours which makes it very pleasing to observe. There are 2 targets for 15 x 70 binoculars. First is Merlotte 15, an open cluster. Binoculars will resolve around 10 stars against a hazy background. The final target is the Double Cluster, NGC 869 & NGC 884. Larger binoculars reveal much more detail and the variety of star colours present. For full details on how to find these objects, look at this month's edition of Sky at Night Magazine

Deep Sky Tour – This month's Sky at Night Deep Sky Tour is centred on the area around Lacerta. First is a large open cluster, M39. Although technically visible to the naked eye, this can be challenging to spot against the rich star field of the Milky Way behind it. A small telescope will resolve around 30 of the stars in this cluster. Another challenging target is IC 5146 the Cocoon Nebula, which will appear as a faint circular glow in the eye piece. A UHC or Hydrogen Beta filter will improve contrast. Next is the open cluster NGC 7209 an open cluster containing around 100 stars, many of them hot, blue stars. A 6" telescope will resolve around 40 stars, but a 10" telescope will resolve about 75 of them. The next target is NGC 7243, a cluster with a distinctive arrowhead shape. A 6" telescope will reveal about 40 stars, most of them white/blue. The final 2 targets are planetary nebulae, the first IC 5217 which is a mag +12.6 planetary so is quite faint. A 10" telescope will show the north-south elongation. A 12" telescope will show the bright core plus a hint of green/blue/grey colour. The final planetary is ME 2-2 which is a very small and faint target. It will require a large aperture telescope and magnification of about 400x to reveal any detail. An OIII filter will help it to stand out from the background stars. For full details of where to find these objects and how best to see them, pick up the current issue of Sky at Night magazine

M1 the Crab Nebula – Astronomy Now's object of the month is the supernova remnant M1 the Crab Nebula located in Taurus. This remnant is the remains of a star which went supernova about a thousand years ago, leaving behind a pulsar and a shell of gas which is currently about 13 light years across but which is expanding at 600 miles per second. As it expands it becomes fainter so had Charles Messier been observing today, he may well have failed to spot this object at all! Imaging this object will reveal a more inspiring view than what you will get visually. It responds well to DSLR imaging but the best results are obtained using mono CCD cameras and LRGB filters. For more information on how to observe, image or sketch this object, take a look at the current edition of Astronomy Now magazine

Astronomy Now Sky Tour – this month's Astronomy Now sky tour is in the sky around Perseus, Cassiopeia, Triangulum and Aries. This tour includes 2 binary star systems, Gamma Arietis and Gamma Andromedae, the eclipsing binary star system RZ Cassiopeiae, the face on spiral galaxy NGC 925, the Bubble Nebula, the open cluster M103, and IC 1805/1848 the Heart and Soul Nebula. It also includes the Double Cluster, the planetary nebula Abel 4 and the Perseus Galaxy Cluster. For more information about this constellation and all of its treasures, take a look at the current edition of Astronomy Now magazine

International Space Station – there are some early morning passes of the ISS during the first 2 and a half weeks of November, with the final morning pass on 17th November. It then returns to our skies for some early evening passes on 28th November and these continue into early December. For the exact timings of the passes from your location, visit www.heavens-above.com You can also check the Iridium flare times for your location at Heavens Above. Within the next 12 – 18 months all of the flaring Iridium satellites will have been deorbited and we will no longer be able to observe Iridium flares

Comets Visible This Month:

Comet C/2017 O1 ASASSN – current at mag +9 and fading, this comet lies in Draco so is visible all night long.

Click here to view the finder chart: <http://bit.ly/2vSdVNd>

Comet 24P/Schaumasse – moving from Leo into Virgo during November, this comet rises at around 1:30am and remains visible until dawn. It is currently mag +11 and brightening. Click here to view the finder chart: <http://bit.ly/2h2EPfI>

Comet 62P/Tsuchinshan – located in Leo, this comet rises at around half past midnight then remains visible until dawn. It is currently at mag +11 and reaches peak magnitude later in the month. On the morning of 11th November it will pass between 2 galaxies in Leo, M96 and M105. With the comet being a similar magnitude to these galaxies, it will make an excellent photo opportunity. Click here to view the finder chart: <http://bit.ly/2hdKwvd>

There are several other comets in the mag +11 to +15 range. Details of these can be found in the links below.

For up to date information about the fainter comets which are visible, please visit:

<https://in-the-sky.org/data/comets.php>, the BAA Comets Section: <https://www.ast.cam.ac.uk/~jds/> or Seiichi Yoshida's home page: <http://www.aerith.net/index.html>

NB: All of the information in this sky guide is taken from Night Scenes 2017 by Paul L Money, Philips Stargazing 2017 by Heather Couper and Nigel Henbest, 2017 Yearbook of Astronomy by Richard Pearson and Brian Jones, Astronomy Now Magazine, Sky at Night Magazine, Stellarium, the BAA Comets Section website <https://www.ast.cam.ac.uk/~jds/>, www.inthesky.org and www.heavens-above.com

Information collated by Mary McIntyre. For regular updates about the events happening in the sky this month, follow the Nightscenes Monthly Night Sky Facebook page at www.facebook.com/AstrospacePublications