

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

### **Moon:**

Full:	5 <sup>th</sup> October 7:40pm
Last Quarter:	12 <sup>th</sup> October 1:25pm
New:	19 <sup>th</sup> October 8:12pm
First Quarter:	27 <sup>th</sup> October 11:22pm

The Lunar "X" and "V" are visible at around 10:00am UT which is 4 hours before the Moon rises 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

12 <sup>th</sup> October	Last Quarter Moon lies close to Alhena
14 <sup>th</sup> October	Waning Crescent Moon occults omicron Cancri at 3:50am
15 <sup>th</sup> October	Waning Crescent Moon lies close to Regulus
17 <sup>th</sup> October	Waning Crescent Moon lies close to Mars and Venus
18 <sup>th</sup> October	Waning Crescent Moon lies close to Venus
24 <sup>th</sup> October	Waxing Crescent Moon lies close to Saturn
27 <sup>th</sup> October	First Quarter Moon lies close to Alpha & Beta Capricorni
28 <sup>th</sup> October	Waxing Gibbous Moon lies close to Theta Capricorni
30 <sup>th</sup> October	Waxing Gibbous Moon lies close to Neptune

### **Planetary Observations:**

**Mercury** – is not observable this month

**Venus** – lying in Virgo and rising 2 hours before the Sun, Venus dominates the morning sky, shining at mag -3.7. Before dawn on 17<sup>th</sup> October the Waning Crescent Moon and Mars lie close to Venus, making an excellent photo opportunity. On the morning of 18<sup>th</sup> October the very slim Waning Crescent Moon lies close to Venus

**Mars** – moving from Leo into Virgo, Mars lies quite close to Venus in the dawn sky. At mag +1.8 it is over a hundred times fainter than its companion, but you should be able to see its characteristic red colour. Before dawn on 17<sup>th</sup> October the Waning Crescent Moon and Venus lie close to Mars making an excellent photo opportunity

**Jupiter** – is not observable this month

**Saturn** – the only prominent planet visible in the evening sky this month is Saturn. Located in Ophiuchus, it sets at around 9pm. Although quite low and not particularly bright at mag +0.6, the rings appear wider open than they've been in 14 years, so it definitely worth trying to observe the ringed planet. On 24<sup>th</sup> October, the Waxing Crescent Moon lies close to Saturn

**Neptune** – lying in Aquarius, Neptune is visible after sunset and doesn't set until around 3:30am. On 30<sup>th</sup> October, the Waxing Gibbous Moon lies close to Neptune

**Uranus** – reaching opposition on 19<sup>th</sup> October, Uranus is visible all night long this month. It lies in Pisces, and at mag +5.7 you will probably need binoculars to observe it unless you have very dark skies

**Pluto** – located in Sagittarius, Pluto is visible low in the SW after sunset and sets at around 10:30pm. At mag +14.2 you will need a large telescope to observe it

**Ceres** – located in Cancer, Ceres rises at around half past midnight in the east and remains visible until dawn. At mag +7.8 you will need binoculars to observe it. On 14<sup>th</sup> October, Ceres lies close to M44 the Beehive Cluster

**Vesta** – is not observable this month

**Pallas** – the faintest of the minor planets reaches opposition on 29<sup>th</sup> October so it rising at around 10:30pm and is visible all night long where it lies in Eridanus. It is quite low and at mag +8.2 you will need binoculars or a small telescope to observe it

**136199 Eris** – this distant dwarf planet reaches opposition on 17<sup>th</sup> October so is best placed for observation. Located in Cetus, it lies close to Uranus. However, at mag +18.8 this will be a serious challenge to observe, even for experienced astronomers!

### Other Observations:

**Orionids Meteor Shower** – the Orionids peaks between 21<sup>st</sup> – 23<sup>rd</sup> October. The zenith hourly rate for this shower is only about 25, but this shower often produces fast meteors which can leave persistent trains. The radiant is to the upper left of Orion's shoulder and this will be above the horizon by 1am BST, so rates will increase as the radiant gets higher. The Moon will be out of the way so conditions should be good for the Orionids this year

**International Space Station** – There are a series of evening passes of the ISS until 15<sup>th</sup> October, then it leaves our skies for a couple of weeks. It returns for an early morning pass on 31<sup>st</sup> October. For the exact timings of the passes from your location, visit [www.heavens-above.com](http://www.heavens-above.com) You can also check the Iridium flare times for your location at Heavens Above

### Comets Visible This Month:

**Comet 2017 O1 ASASSN** – located in Perseus and moves up through Camelopardalis during October, this comet rises at around 8:45pm and remains visible until dawn. It is currently brightening, predicted to reach peak magnitude on 16<sup>th</sup> October when it is estimated reach mag +7.8. Click here to view the finder chart: <http://bit.ly/2vSdVNd>

**C/2016 R2 (PanSTARRS)** – moving through the stars of Orion' Belt, this comet rises at 11:30pm and remains visible until dawn. Between 11<sup>th</sup> – 14<sup>th</sup> October it will be just 10 arc minutes from Alnilan. It is predicted to be around mag +10 this month. Click here to view the finder chart: <http://bit.ly/2xi5s9l>

**Comet 24/P Schaumasse** – located in Leo during October, this comet rises at around 2:30am and remains visible until dawn. It is currently at mag +10.8 and brightening, predicted to reach peak magnitude during early November. Click here to view the finder chart: <http://bit.ly/2h2EPfl>

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, *Astronomy Now Magazine*, *2017 Yearbook of Astronomy* by Richard Pearson and Brian Jones, *Sky at Night Magazine*, *Stellarium*, the BAA Comets Section website <https://www.ast.cam.ac.uk/~jds/>, [www.inthesky.org](http://www.inthesky.org) and [www.heavens-above.com](http://www.heavens-above.com)

Information collated by Mary McIntyre. For regular updates about the events happening in the sky this month, follow the *Nightszenes Monthly Night Sky Facebook page* at [www.facebook.com/AstrospacePublications](http://www.facebook.com/AstrospacePublications)