

Dundee Astronomical Society

Sky Notes for October 2016

Sky Map for 15th October 22:00

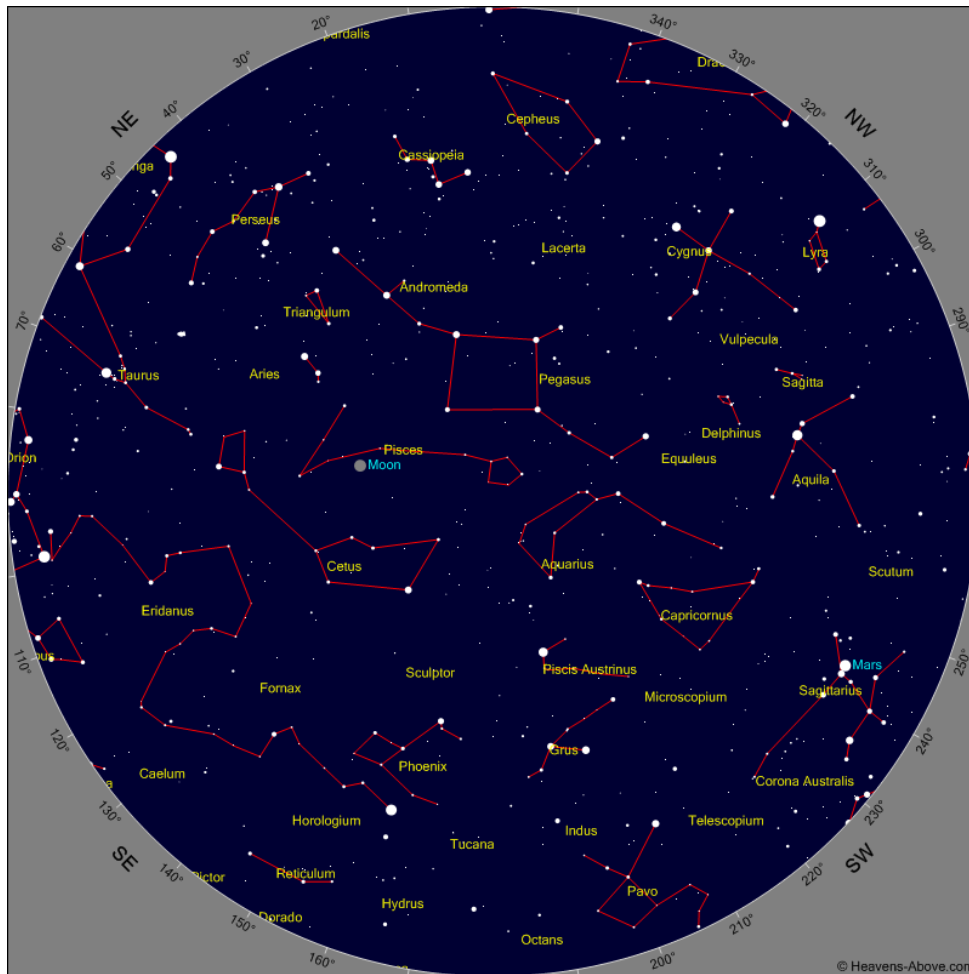


Illustration Courtesy of www.heavensabove.com

As the autumn approaches and the nights get dark earlier we can look forward to even more opportunities to see and view the night sky. Of course that presupposes that the weather gods look favourably on us poor souls who prefer to go outside in the dark, setup our scopes and freeze our little cotton socks off to see some old friends who are returning to our night skies and, of course, hopefully meeting some new ones. We must be a strange group, doing this rather than being inside in the warm with a glass of nice wine or a beer. So look out for returning old friends such as Pegasus, Pisces and Andromeda to name a few. Also, having the opportunity to look for new delights we may have been putting off looking out for. This month Orion will make a long awaited return, probably one of the most recognised winter constellations, with many delights to share with us, particularly for those new and fairly new amateur astronomers amongst us. For some old timers Orion still holds a magic we cannot get away from. Alongside Orion, and taking a line through the

belt to the West, this points us in the direction of Aldebaran (the eye of Taurus the Bull) in the Hyades Cluster.



Going further West following the line from Orion's belt, through Aldebaran, we move onto the Pleiades or Seven Sisters Cluster (M45). This can easily be seen with the naked eye, but is much better using binoculars, which shows the Nebulosity around some of Cluster stars.



Of course there are many other constellations, asterisms etc to view so don't just look at one or two of these, but have a look around and enjoy the many sights and wonders.

The Planets

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|----------------|---|
| Mercury | is well placed in the morning at the start of the month. Mercury will be very close to Jupiter on the 11 th . |
| Venus | Poorly placed in the evening sky this month and will be close to Saturn at the end of the month. |
| Mars | remains low in the sky but should be visible all month from a good vantage point. |
| Jupiter | is now a morning object. A waning crescent moon will be north of Jupiter on the 28 th of the month around 1000 UT. |

Saturn is now to low in our evening sky.

Uranus reaches opposition on the 15th and should be visible all night long. The full Moon is close on the morning of the 16th.

Neptune continues to be well placed throughout the month.

The Moon

New Moon occurs on the 1st of the month.

First Quarter occurs on the 9th of the month

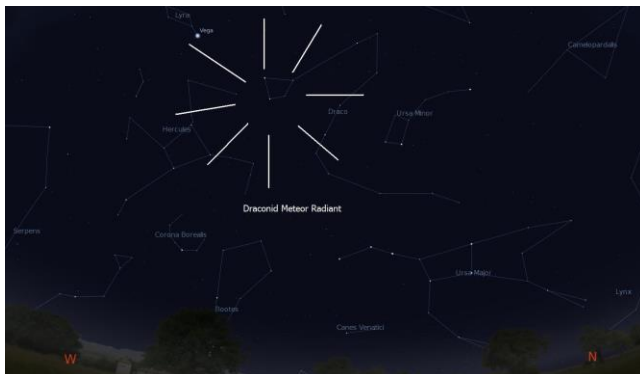
Full Moon occurs on the 16th of the month and will be a Super Moon. This full moon was known by early Native American tribes as the Full Hunters' Moon because at this time of year the leaves are falling and the game is fat and ready to hunt. This moon has also been known as the Travel Moon and the Blood Moon. The Moon will be at its closest approach to the Earth and may look slightly larger and brighter than usual.

Last Quarter occurs on the 22nd of the month.

New Moon will also occur on the 30th of the month.

Meteor Showers

The Draconid's Meteor shower occurs this year on the 11th – 12th of the month. The source of the shower is the dust grains left behind by Comet 21P Giacobini – Zinner. Exhibiting a ZHR of around 10 meteors per hour will be visible unusually in the early evening rather the normal early morning.



The annual Orionid meteor shower peaks on the night of 21st – 22nd. This shower occurs when the Earth passes through the debris stream of Halley's comet orbit. With a ZHR of around 20, this should be a good show. Unfortunately, with the full Moon on the 16th it may slightly diminish the show, but overall we still should have a reasonable view.



Jim's Focus of the Month

Vulpecula – The name means “the little fox” in Latin and is not associated with any myths. This constellation is a relatively faint one, with no stars brighter than fourth magnitude. It lies in the middle of the Summer Triangle, an asterism formed by the bright stars Vega in the constellation Lyra, Altair in Aquila, and Deneb in Cygnus. There are some notable DSO's in Vulpecula, probably the one most known is M27 the Dumbbell Nebula. The Dumbbell Nebula is one of the best known planetary nebulae in the sky. It was formed when a dying star threw off its gas, and named Dumbbell because it has a double-lobed structure resembling a bar-bell. It is also sometimes called the Apple Core Nebula. Messier 27 was the first planetary nebula ever discovered. Charles Messier first observed it in 1764. The nebula has an apparent magnitude of 7.5 and is approximately 1,360 light years distant from the solar system.



At this time of the year the Summer Triangle is dipping towards the horizon. The most obvious star is Altair. It won't be long before we lose it altogether.

Other DSO's you can find in Vulpecula. NGC 7052 is an elliptical galaxy in Vulpecula. It has an apparent visual magnitude of 13.4 and is approximately 191 million light years distant. The galaxy is a known radio source.



Of course we shouldn't forget the Coathanger or Brocchi's Cluster. Brocchi's Cluster is also known as Al Sufi's Cluster, after the Persian astronomer Al Sufi who discovered it and described it in his *Book of Fixed Stars* in 964.



There are many other DSO's with this constellation go and find them and have fun.

Did You Know?

11th Oct 1968 - first manned Apollo flight launched.

22nd October 1975 - Venera 9 takes first photos from the surface of Venus

24th October 1998 - US deep Space 1, 1st mission of the New Millennium program launched.

28th October 1971 - first UK artificial satellite launched.

Remember put your clocks back 1 hour on Saturday night the 29th October before you go beddy byes as Summer time ends!

Jim Barber

Director of Observations

Dundee Astronomical Society