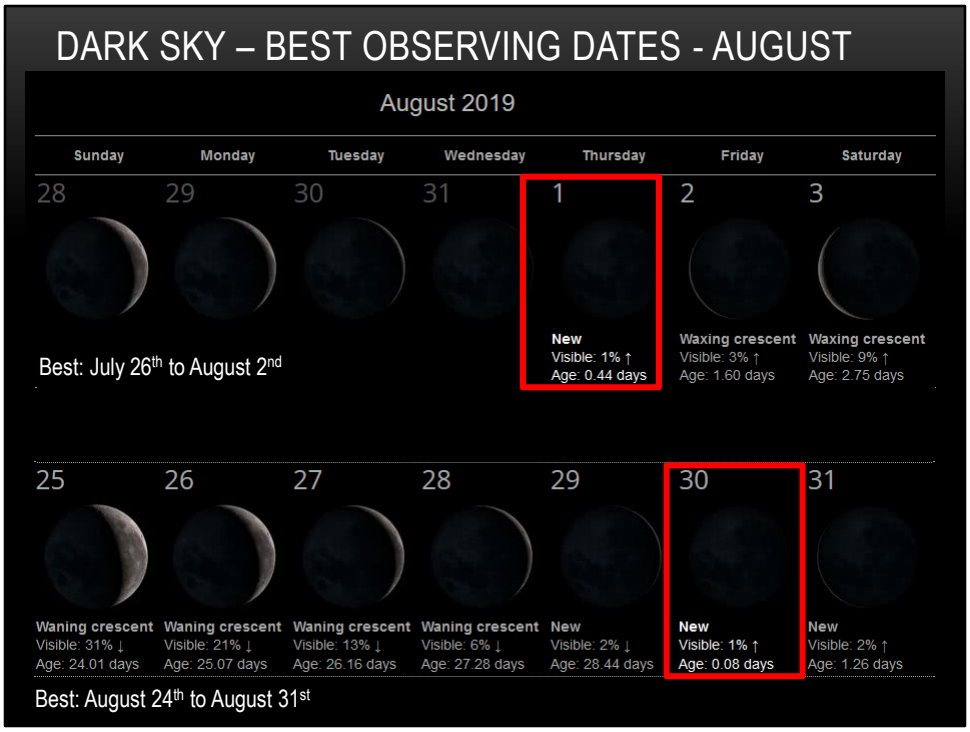
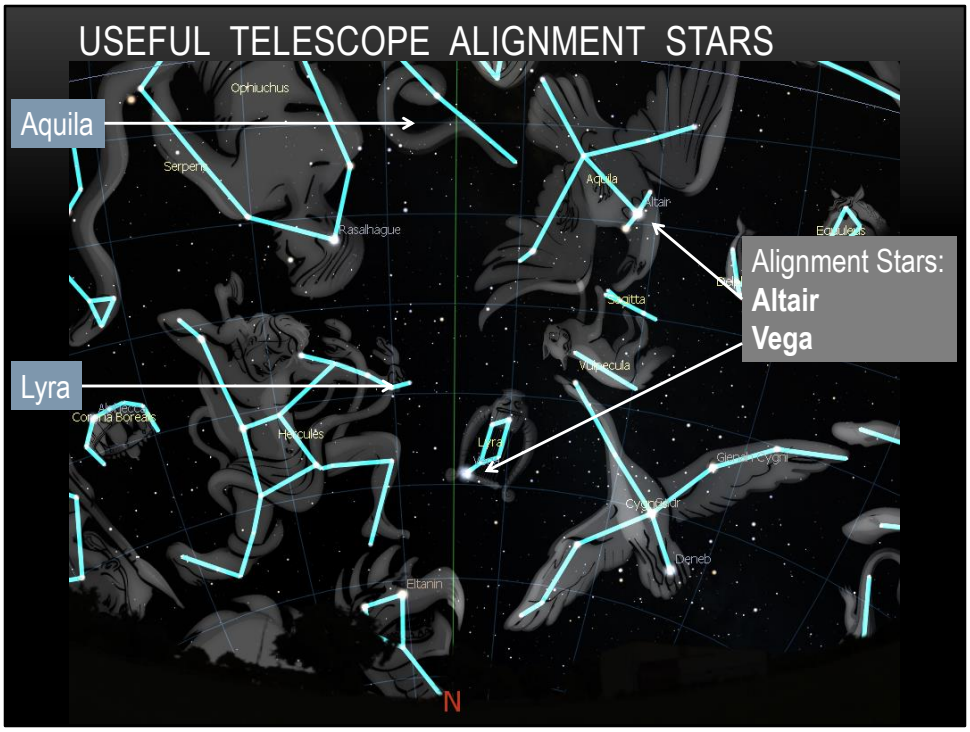
BAS - MONTHLY SKY GUIDE

August 2019

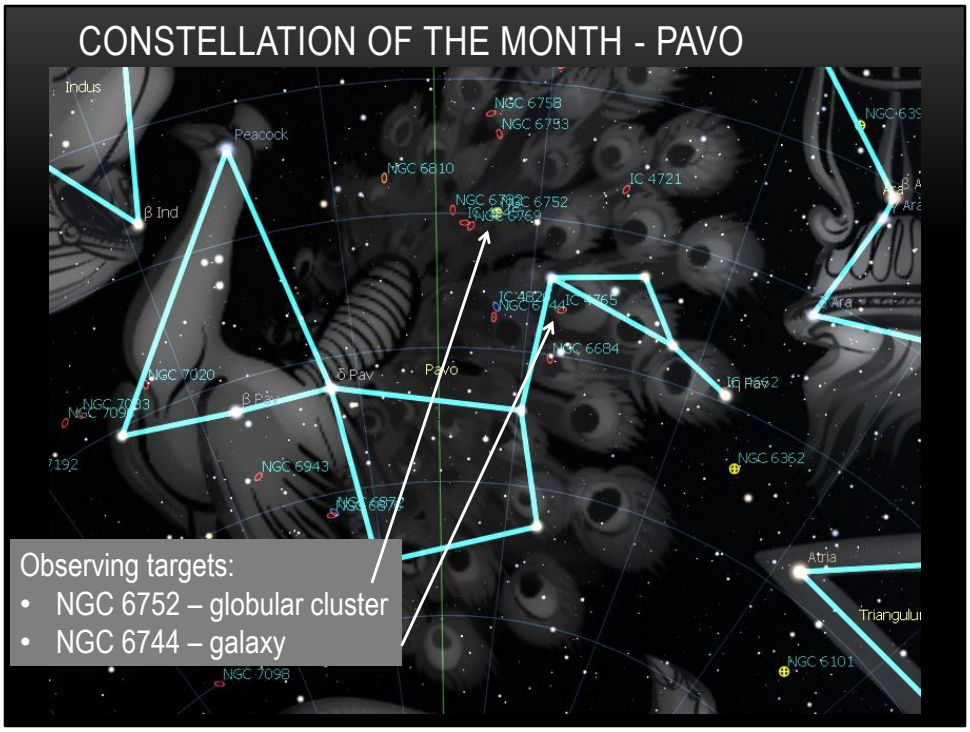
August is another great month for peering into the arms and core of our Milky Way Galaxy. Scorpius and Sagittarius are the highlight constellations this month.



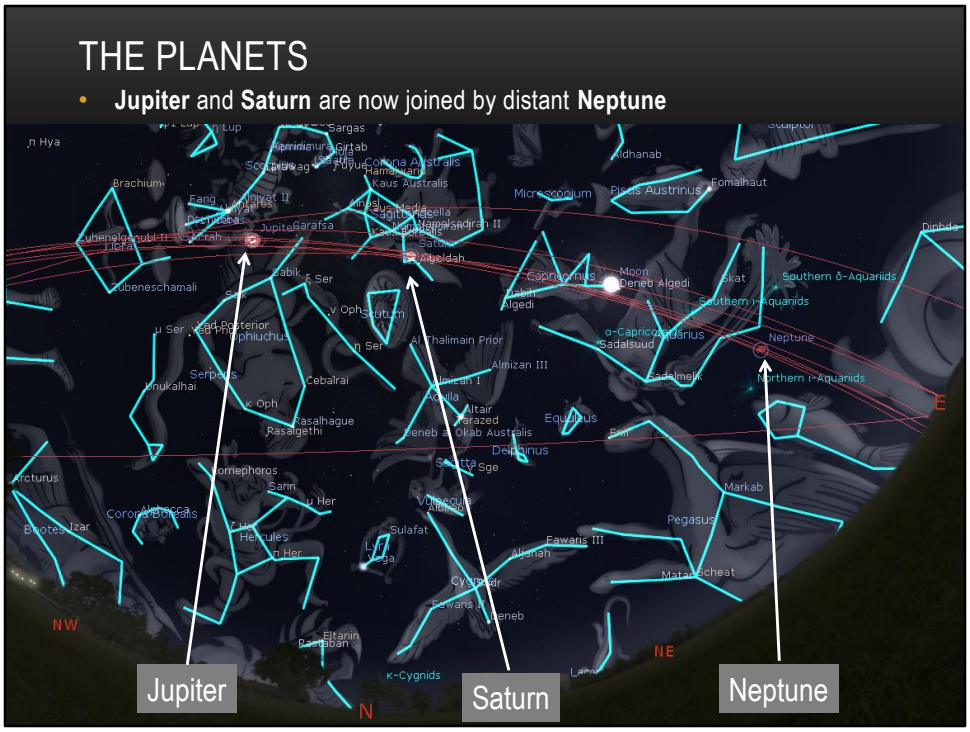
August is a "Black Moon" month. A month with two Full Moons is referred to as a Blue Moon month. This month we have two New Moons as an entire lunar cycle can be just squeezed into a 31 day month if a New Moon falls on the first of the month. So we have two good observing opportunities in August – well sort of. The first New Moon is Thursday August 1st . A full evening of observing from sunset through to about midnight can be achieved for about a week prior to the New Moon. So plan your observing dates from about July 26th onwards. The slim waxing crescent of the early New Moon sets around the end of astronomical twilight on August 2nd so the setting Moon starts to eat into early evening observing time after that date. So make good use of the period around July 26th to August 2nd . So, part of your August observing might be conducted in July! Your next observing opportunity will be the final 7 or 8 days of August around the second New Moon, August 24th to the 31st . Don't forget to book for Queensland Astrofest 2017.



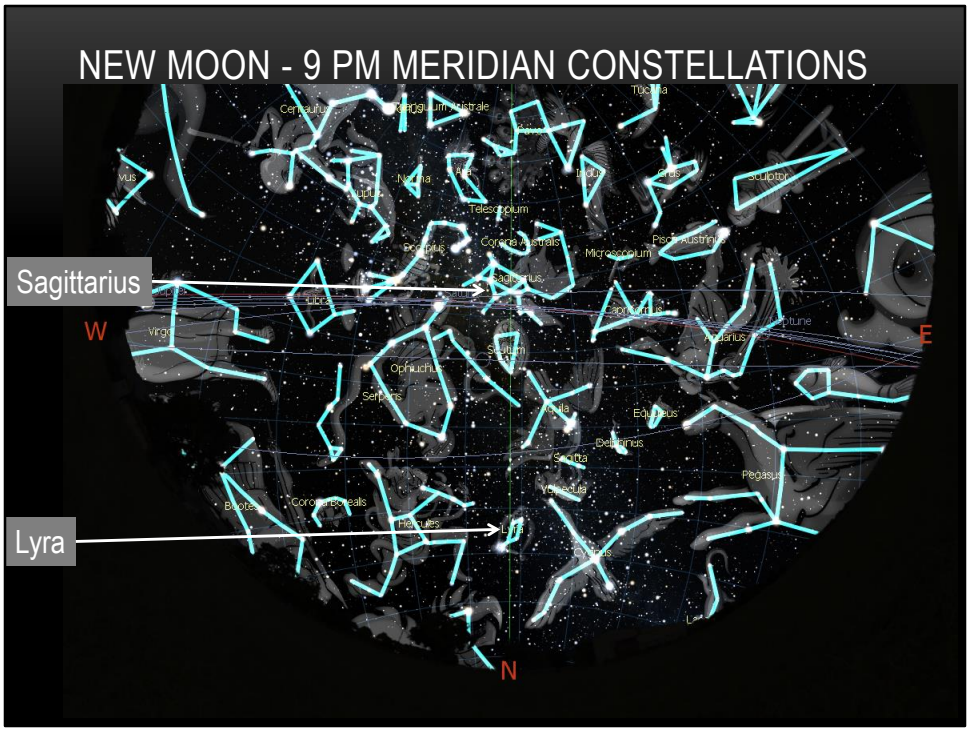
Two prominent stars in the northern sky that could be used for telescope alignment are Vega in the constellation Lyra and Altair in the constellation Aquila. While they may be a little too close together in the same region of the sky to deliver a really good alignment they are still useful as they are easy to locate. Vega is very bright and no other star nearby comes close to its brilliance, so that makes it easy to be sure you have the right star in the eyepiece. Altair is a little more difficult to distinguish. However the constellation Aquila, "The Eagle", is a large inverted cross shape and Altair sits towards the bottom where a good imagination might suggest the head of the Eagle. So Altair might be considered the eye of the eagle and the adjacent smaller bright stars part of the beak. Once the asterism is fixed to memory it becomes relatively easy to relocate.



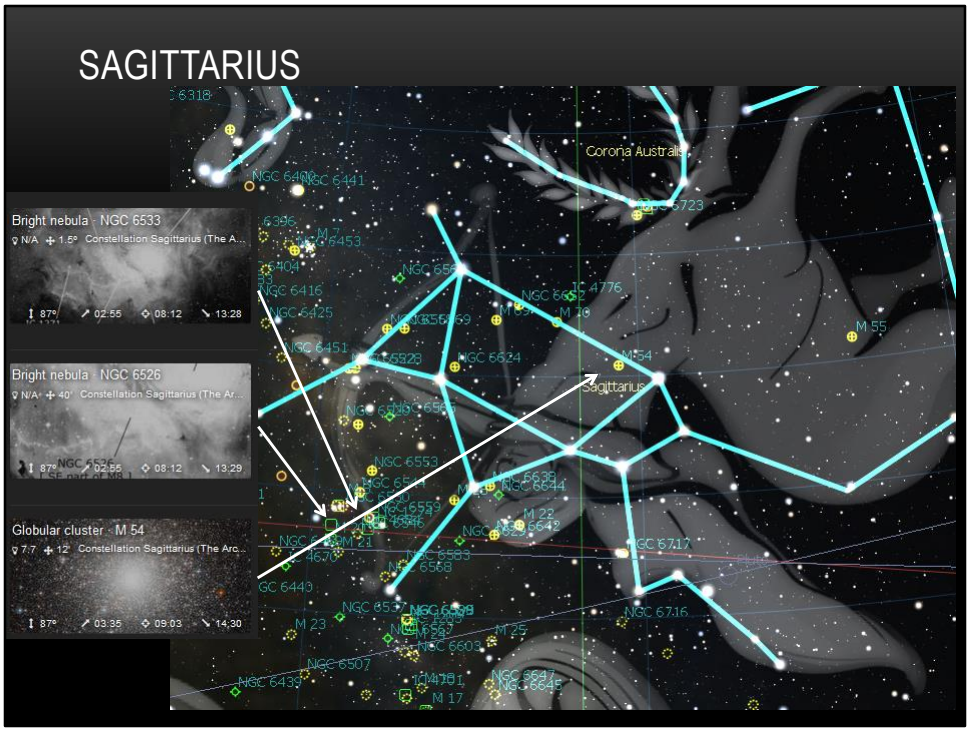
The constellation Pavo, Latin for Peacock, is in the far southern sky and only visible to southern hemisphere observers. Its mythical origins date back to complicated Greek and Roman stories of gods and monsters and relates in part to a beast with 100 eyes, and thus the association with the "eyes" on the Peacock's tail. A notable object in Pavo is the 6th magnitude, and so very bright, globular cluster NGC 6752 located 13,000 light years away. Also impressive is the spiral galaxy NGC 6744 located 30 million light years away. It is considered one of the most Milky Way-like galaxies and so can give a distant observer, such as us, an idea of what our own galaxy may look like from afar.



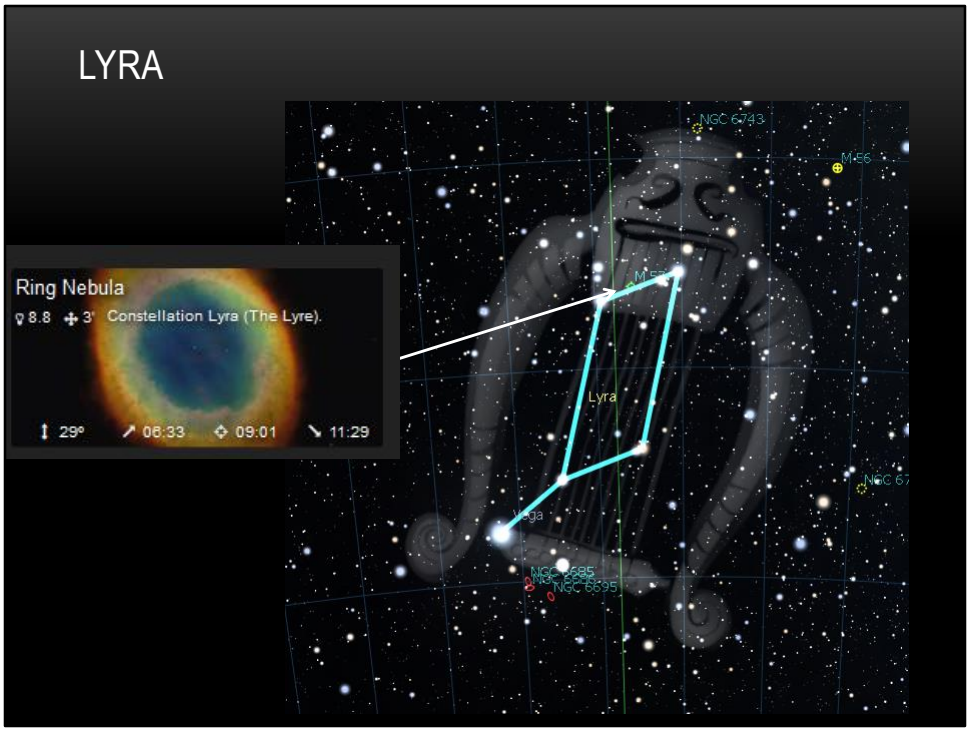
Jupiter is now a few months past opposition and in the western side of the meridian, but still a fantastic observing object. Saturn is also now past opposition but a wonderful sight. Neptune is now also visible in the eastern evening sky but remains a tiny blueish dot due to its distant orbital path that averages over 30 Astronomical Units from the Sun.



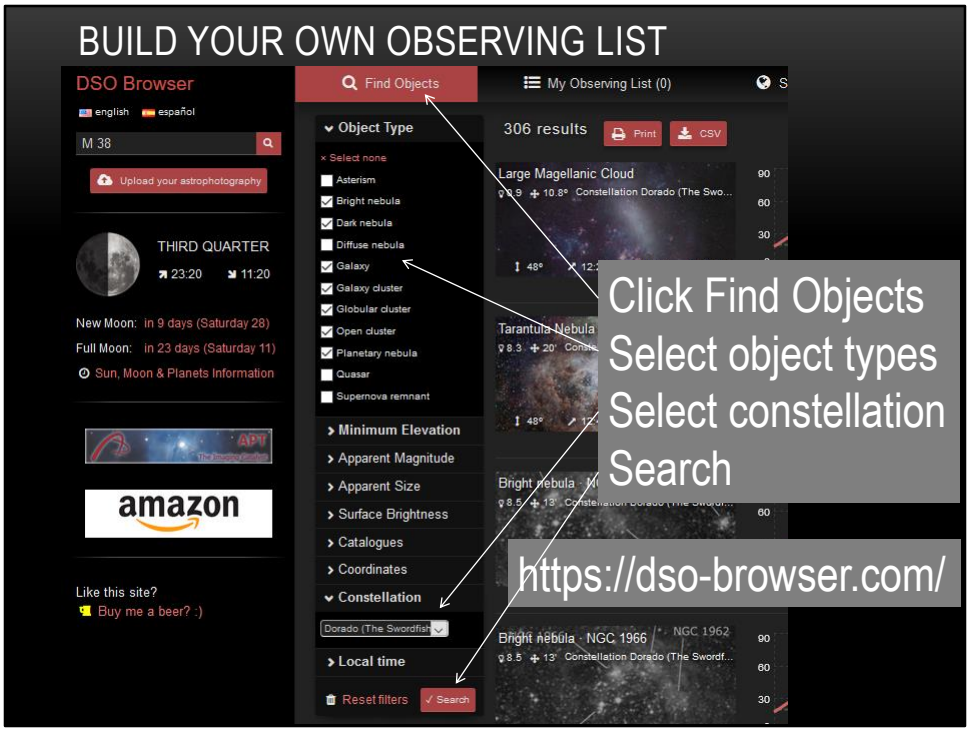
A couple of constellations in the sky along the meridian at about 9 PM during the new Moon period are the constellations Sagittarius and Lyra. Both are easily identifiable. Sagittarius has a distinctive teapot shape in the centre of the brightest region of the band of the Milky Way. Bright Vega in the low northern sky clearly identifies the location of Lyra.



Sagittarius, “the Archer”, is a constellation that is believed to have been first designated by ancient Babylonian astronomers around 1000 BC. In some ways it may also be considered “the king” of constellations as it is so rich with observing targets and also contains the centre of the Milky Way Galaxy. But for all that, people often refer to Sagittarius as “The Teapot” as that is pretty much what the main asterism looks like. There are weeks’ worth of great observing targets in just this one constellation. Lots of globular clusters, planetary nebulae, dark nebulae and some stunning bright nebulae too. DSO-Browser list 261 observation targets. A few of the highlights are: Messier 8 or NGC 6533, the Lagoon Nebula. A beautiful glowing hydrogen gas cloud about 4,300 light years away. Messier 20 or NGC 6526, The Trifid Nebula, another glowing gas nebula this time 5,200 light years away. And globular cluster Messier 54 which is actually way across the other side of our galaxy and believed to be part of the Sagittarius Dwarf Elliptical Galaxy 84,000 light years away. So with this object even though you are looking towards the heart of our own galaxy you are actually seeing into another galaxy that is too dim to distinguish from the mass of other stars in the crowded field of view.



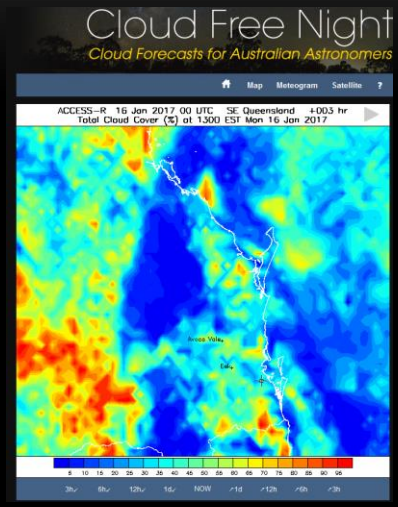
Observing in the constellation Lyra is all about just one object, Messier 57 the Ring Nebula. This is a planetary nebular looking like a tiny smoke ring in space, but one 1,400 light years distant.



Make sure you take a look at the great observing planning tool DSO-Browser before the New Moon period. This is a fantastic tool to help you build a list of objects you can try and find each month.
Just a few clicks on www.dso-browser.com can generate a fantastic observing list of object types you are interested in.

AVOIDING CLOUDS

www.cloudfreenight.com



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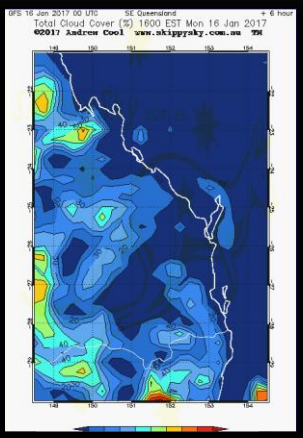

More info: http://philhart.com/content/cloud-forecasts-australian-astronomers

And the find the best cloud-free evenings for observing make sure you check CloudFreeNight and Skippysky as you plan your next observing evening.