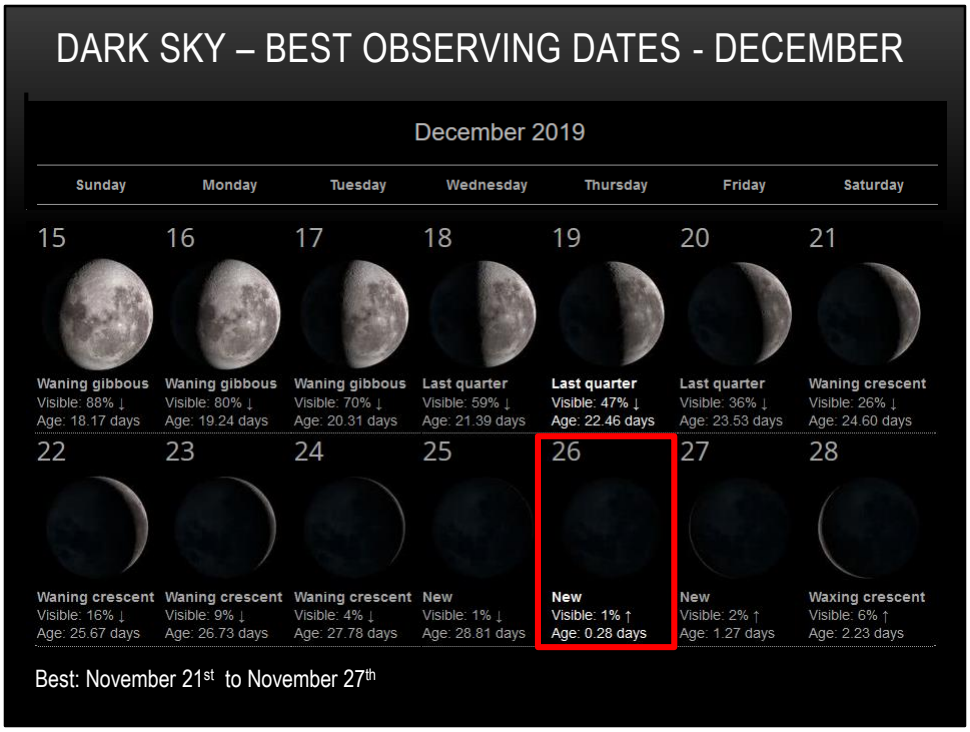
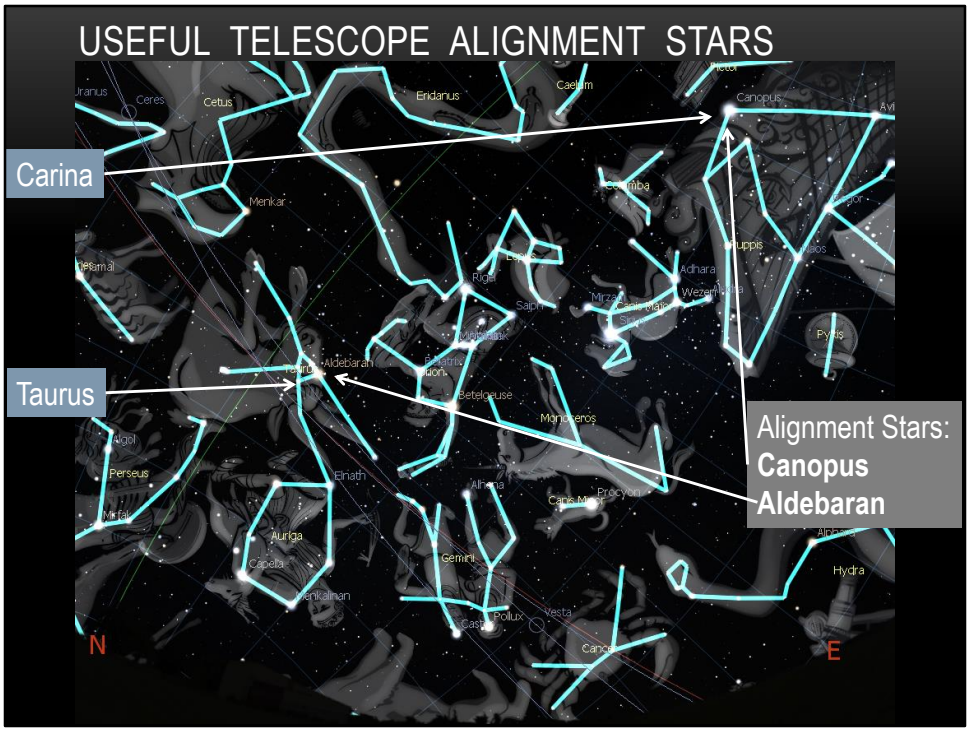
# BAS - MONTHLY SKY GUIDE

December 2019

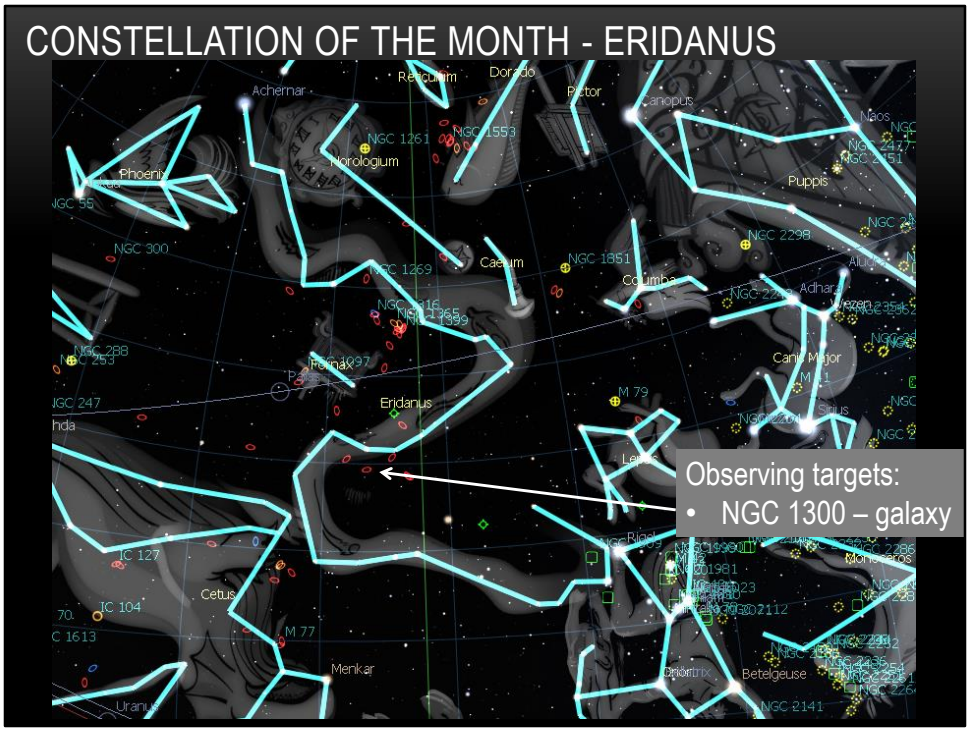
Another trip around the Sun almost complete. It will take many more future trips to see everything the sky and astro-catalogues have to offer. So start planning your observing dates and targets for 2018 and your next trip around the Sun.




New Moon is Thursday December 26th. 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 December 20th onwards. Following New Moon on the 26th the slim crescent Moon sets after the end of astronomical twilight and so the setting Moon starts to eat into early evening observing time after that date. So make good use of the period around December 20th to New Moon on December 26th. Get your Christmas shopping done early (buying some great new astro-gear) and put it to work over the Christmas break. It will be cloud-free this year.

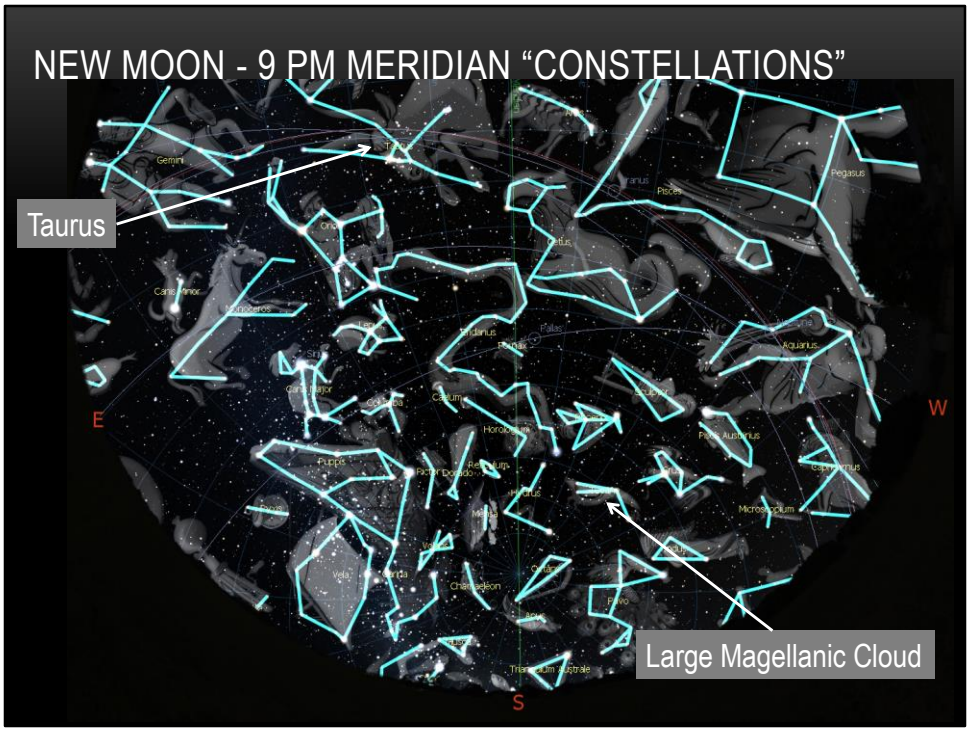



Two prominent and widely spaced stars that are good for telescope alignment are Aldebaran in the constellation Taurus, “the Bull”, located on the ecliptic, and bright Canopus in the constellation Carina. Aldebaran is a great alignment star as it is bright and distinctly orange and so difficult to confuse with other stars in the eyepiece. Similarly, Canopus is also very bright, the second brightest of all stars in the sky after Sirius, and also easy to distinguish in the eyepiece.

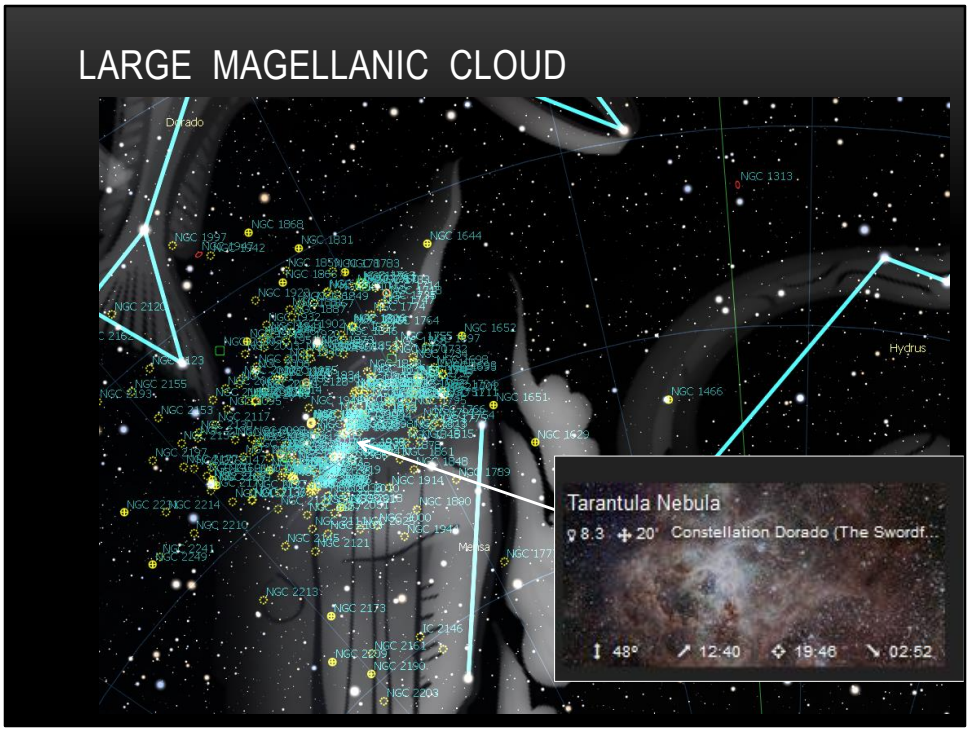



The constellation Eridanus is one of Greek astronomer Ptolemy's 44 original constellations. Eridanus translates to "the River" and it is one of the largest constellations in the sky, but not one of the easiest to locate visually. In Greek mythology the constellation marks the wild path a runaway chariot, driven by Phaeton, took across the sky as he attempted to guide the Sun across the sky. The easiest place to start when trying to locate Eridanus is at either of its ends. The constellation winds its way from bright star Rigel at the foot of Orion to the reasonably bright star Achernar in the far southern sky. The constellation is best known for its galaxies however most are very distant and faint. Galaxy NGC 1300, located 47 million light years away, is a large face-on spiral that is worth seeking out. But in a dark sky there are many additional galaxies that are also worth hunting for in Eridanus. There are also some great astrophotography targets such as the Witch's Head Nebula.

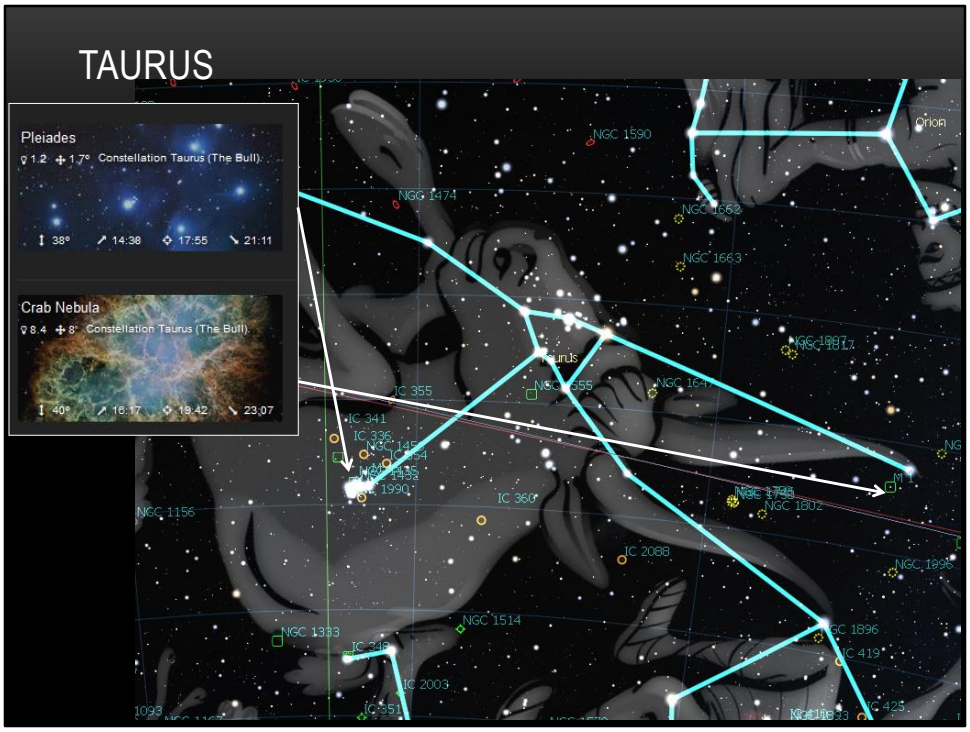

While Neptune and Uranus have a slight blue colour which aids identification, a good set of detailed star charts showing the day-by-day location of these planets is a good tool to have available when hunting for these tiny planetary dots in a starry sky.




Only one region of sky selected this month is actually a true constellation – Taurus, “the Bull”. The other is actually a small galaxy just 160,000 light years from our Milky Way, The Large Magellanic Cloud. Taurus is another constellation defined by the Greek astronomer Ptolemy in around 100 AD but can also be traced back to a string of earlier astronomers many centuries if not thousands of years prior. Taurus is easily recognised by its v-shaped alignment of stars and the bright orange star Aldebaran which marks the eye of the Bull. The two most notable objects in Taurus as the bright cluster of stars to the west, the Pleiades or Seven Sisters, and the much more faint Crab Nebula north-east of Aldebaran near where the right horn of the bull might lie. The Large Magellanic Cloud, located in the constellation Toucana, has been known to southern hemisphere astronomers for eons buy unknown to northern hemisphere astronomers largely until the age of discovery and sailing ventures that headed south of the equator.




Large Magellanic Cloud (LMC) is easily visible as a misty white patch in a dark southern sky at this time of year. While there are dozens of star clusters and small bright star-birth nebulae scattered across the galaxy the telescope is always drawn to the huge bright knot of glowing gas, the Tarantula Nebula, NGC 2070. Initially thought by astronomer to just be a single bright star, in 1751 Nicholas Louis de Lacaille was the first to recognise it was actually a bright nebula and initially named it the “Great Looped Nebula,” which is actually what it looks like. But there is also much more to the LMC and it can take a few hours to locate and view all it has to offer observers.

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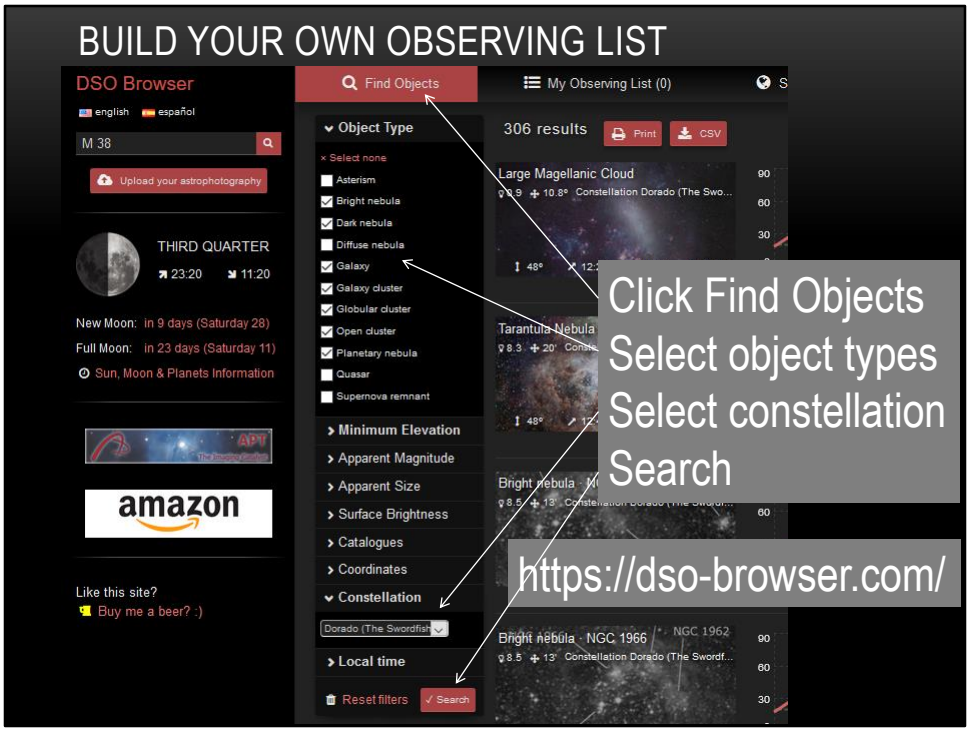
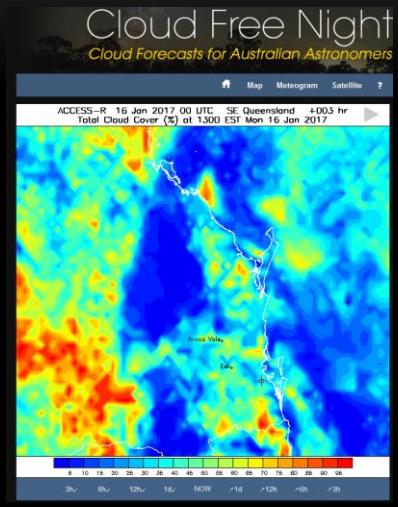


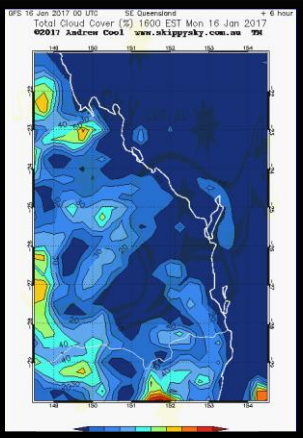

Make sure you take a look at the great observing planning tool DSO-Browser before the New Moon period. This is a fantastic tool to help you build a list of objects you can try and find each month.
Just a few clicks on www.dso-browser.com can generate a fantastic observing list of object types you are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

## AVOIDING CLOUDS

www.cloudfreenight.com




www.skippysky.com




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. But good luck with the summer clouds and storms.