

Stargazing Guide: December 2018

What to look out for...

Constellations (star pictures) and interesting stars:

1 The Plough always the easiest place to start! Find it to the North-East. The last two stars point to the North Star, **Polaris**. Polaris is always seen to the North as it is above the North Pole.



4 Pleiades (say "PLY-uh-deez"). A beautiful group of young stars also known as the Seven Sisters. Although you'll be lucky to see even six stars, there are over a thousand in this young cluster. Unusually, they really are close together in space, having formed from the same gas-cloud (nebula).

2 Taurus (say "TOR-russ"), The Bull. He has a bright orange eye - the giant star Aldebaran, which is about 44 times wider than the Sun. The rest of the "V" shape that makes his face is formed by a star cluster called the Hyades, older than the Pleiades and only about a third as far from us.

3 Perseus (say "PER-see-us").

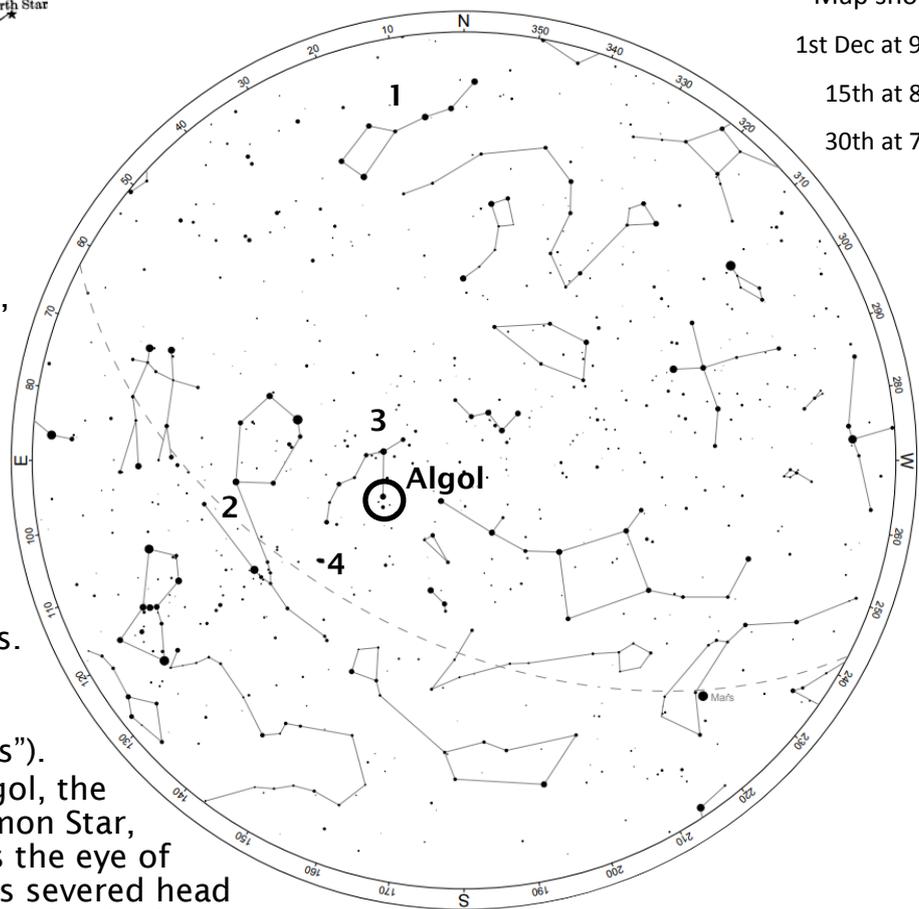


Contains Algol, the Winking Demon Star, which marks the eye of the Medusa's severed head as carried by the hero.

Algol seems to wink every 69 hours. This is because it's actually two stars orbiting around each other. The wink comes when the dimmer star moves between us and the brighter one, blocking its light. Compare Algol's brightness to its neighbours and see if you can spot the wink!

How to use this chart:

Imagine the chart flat & upside-down above your head. The circle around the outside shows the horizon all around you. Turn the chart to have North (N), South (S), East or West at the front depending on which direction you are looking.



Map shows:

1st Dec at 9pm

15th at 8pm

30th at 7pm

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The Moon

Best viewed when lit from the side, as the craters throw long shadows. Look after dark around the 15th or between Christmas and the new year!



Planets

Venus Rises in the early hours of the morning in the East shortly after 4am and will be visible till the sun rises each morning throughout the month.

Mars is visible each evening throughout the month once the sun sets. It will set each night before midnight

Jupiter and Mercury rise in the early hours just before the Sun. At the beginning of the month these may be tricky to spot with mercury rising shortly before Jupiter. During the month Mercury will rise earlier each day at the start of the month, then later each day towards the end of the month, making the best time to view during mid December. Jupiter is rising earlier each day throughout the month appearing to get further away from the Sun, so will become easier to spot with each passing day

Saturn will be visible shortly after sunset towards the west setting soon after the Sun. Saturn will set earlier each night making it more difficult to spot, by the end of the month it will set at the same time as the Sun

Meteors (shooting stars)

The 13th and 14th December marks the annual Geminid meteor shower, and with this year it being close to the time of the first quarter it will make viewing these 'shooting stars' favourable. These meteors are famed for their brightness so you may be lucky! The event occurs as the Earth orbits through a region containing small pieces of rock which then hit our atmosphere and burn up.

Using Binoculars

Binoculars are fantastic for looking at the Moon. You'll see different features depending on how it is lit. The best place to look is along the edge of the shadowed part, known as the terminator. Here the light slants against the surface creating beautifully long shadows that throw the landscape into sharp relief, dramatically lighting mountains and craters.

Tip of the Month

Find the darkest spot you can, even if this just means finding a shadow of a tree or wall to shield you from street-lights or moonlight. You'll be amazed how many more stars you can then see.

Download this star guide and those for other months from:

<http://www.winchestersciencecentre.org/starguides>

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