

Dundee Astronomical Society

Sky Notes for March 2018

Sky Map for 15th March 22:00

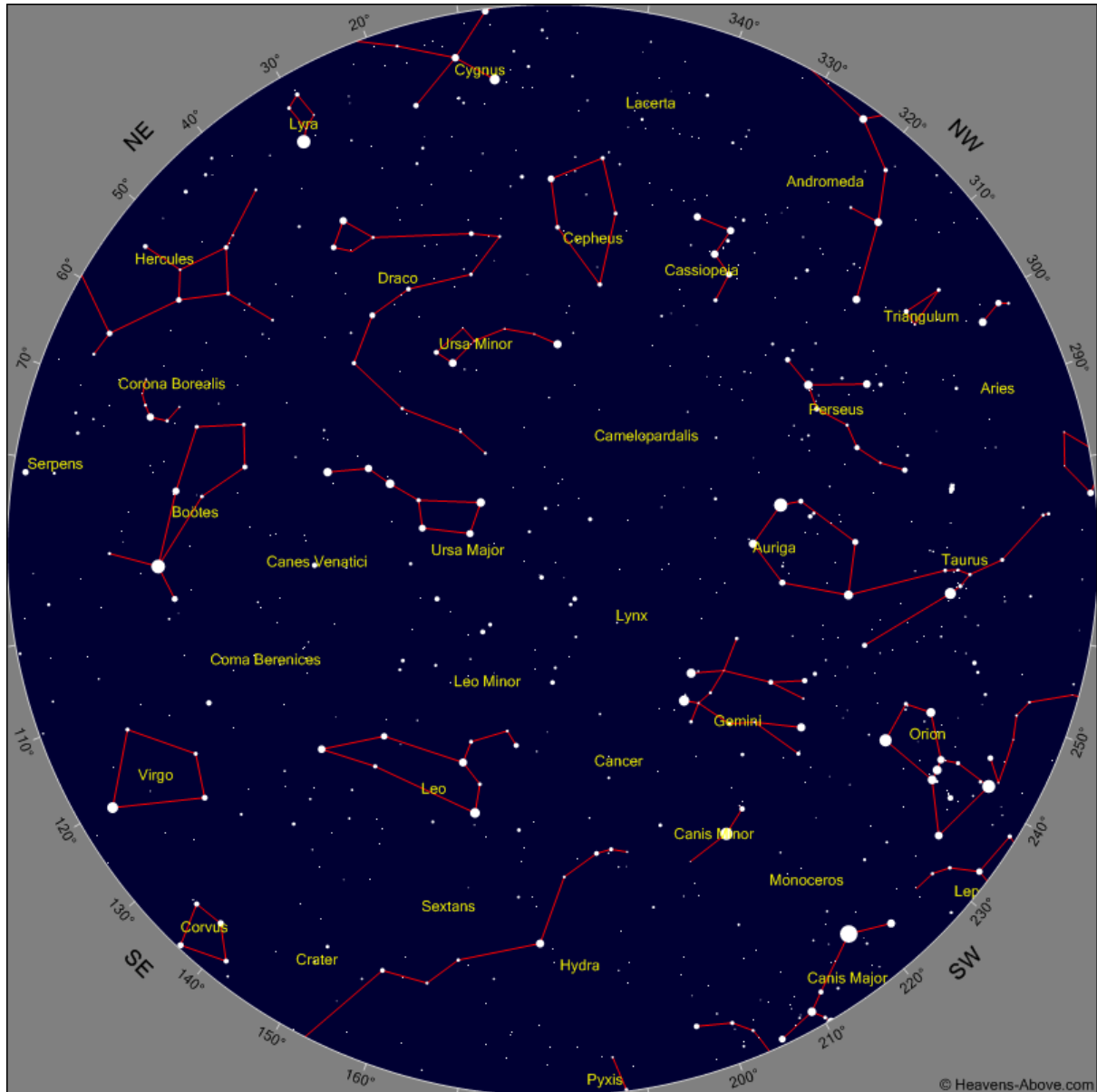


Illustration Courtesy of www.heavensabove.com

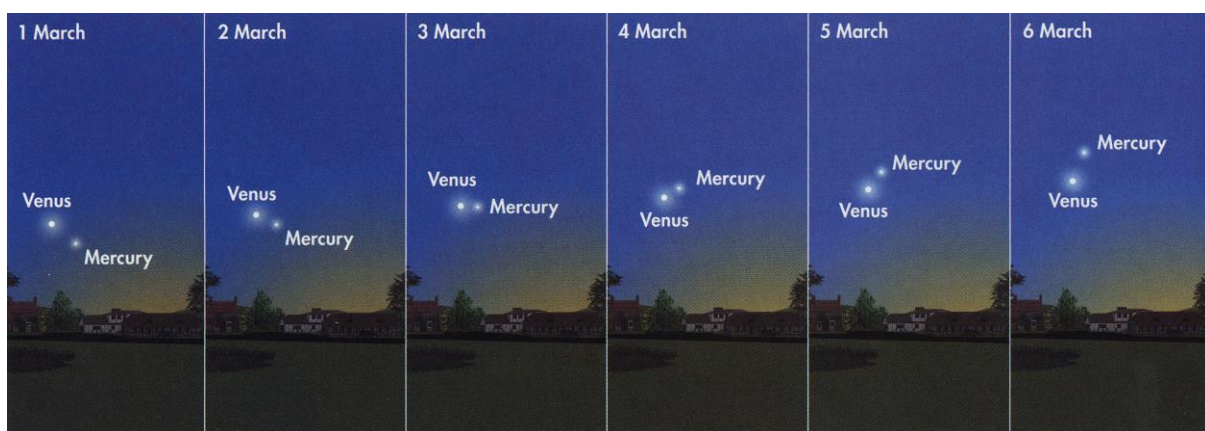
On the 25th of the month we move into British Summer Time (BST) when we put our clocks forward which means we all lose an hour of sleep on the Saturday night Sunday morning. It also means we must subtract 1 hour when we record our observations and images. We don't have to of course but we do tend to use UT as a convention. However, if you do use BST please mention this when you send your observations and images to us.

On the 1st of the month the Moon Occults Regulus (mag +1.3) with occultation starting at 06:00, finishing at 06:51 UT.

The second Occultation takes place on the 22nd March as the Moon passes through the Hyades with 75 Tauri disappearing at 20:14 UT and reappearing at 21:12 UT.

Following that the Moon then goes on to occult Aldebaran again on the 22nd at 23:36 UT reappearing at 00:15 UT. It is probably wise to start looking for the occultations some 15 minutes before the start times above.

4th March also witnesses the close approach of Venus and Mercury - 30 minutes after Sunset. Not only that but on the 18th, the Moon, Venus and Mercury will also form a diagonal line again, 30 minutes after sunset.



Graphi- c Courtesy of Sky at Night Magazine

The Planets

Mercury	Well placed in the evening sky, best viewed on the 15 th around 18:50 UT in Pisces.
Venus	Located in Capricorn, best viewed on the 28 th after sunset.
Mars	Quite low in our sky. Sitting in Sagittarius, best seen on 31 st March 04:00 UT.
Jupiter	Visible in the evening/morning sky best viewed around 03:00 UT on the 31 st .
Saturn	Quite low in the sky this month located in Sagittarius – best viewed around 03:30 UT.
Uranus	Best time to view is around 20:00 UT on the 1 st of the month, located in Pisces.
Neptune	Not visible this month.

The Moon

Full Moon	2 nd March
Third Quarter	9 th March
New Moon	17 th March
First Quarter	24 th March
Full Moon	31 st March (Blue Moon)

Following on from Ken's very informative presentation on the Moon on the 9th of February, he has kindly agreed to provide the detail below.

Ken's Moon in March

Different phases of the Moon are best at different times of the year, so near to new is best around June, around first quarter in March, last quarter in September and full in December. That is when these phases of the Moon are at their highest, and, like any astronomical object, are best observed when near to their highest point.

The Moon is a great subject for any telescope, whatever its size, but if you want to really study it and find fine details such as sinuous rills there is no substitute for telescope aperture. Given a Moon which is high in the sky and a large telescope it is amazing what can be seen – providing the air is relatively stable.

There is so much to see on the Moon that it is probably best to get a general feel for the contrasting areas of dark Maria and light highlands. A small telescope is probably best for this initial orientation and will show the marked contrast between the highly cratered lighter coloured areas and the much less cratered dark Maria.

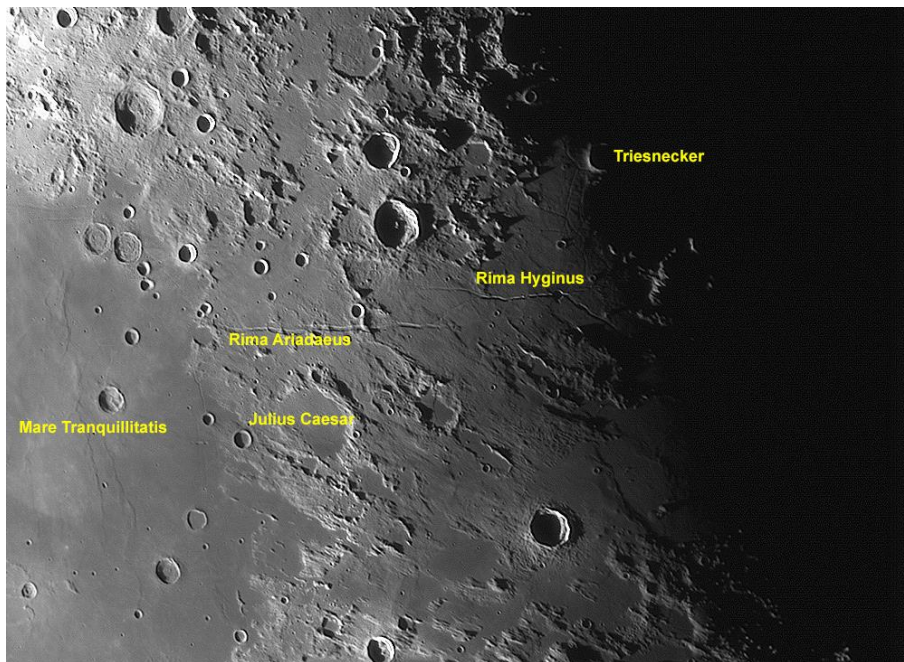
In March, the best phase of the Moon occurs around first quarter because the Moon will be at its highest point in the sky. It's also a great time to observe the Moon because it is well placed at a civilised time of the evening. For the first of these brief Moon guides let's have a look near the centre of the Moon at the point where the terminator lies on the 23rd and 24th March.

The area of interest lies just westwards of Mare Tranquillitatis. Find the basalt filled, ruined crater Julius Caesar and immediately to its south you will see a distinct fault running east – west. This is

Rima Ariadaeus, a graben fault caused by stress fractures and subsidence between these fractures. It stretches for 250 km and is forked at its west end where it points towards Rima Hyginus. Rima Hyginus forms a beautiful dogleg at the point of the crater Hyginus. The floor of Rima Hyginus is pitted by numerous craterlets and this has led to the suggestion that this feature is the result of volcanic activity rather than a true graben or lava flow rille.

Looking southwards from Hyginus you will see the rather isolated but distinct crater Triesnecker. This crater is 23 km in diameter and although classic in itself, the main point of interest is the network of sinuous rilles around Triesnecker. The features have been described as resembling a cracked eggshell and it is possible see them in good conditions with a 6-inch telescope - perhaps smaller if conditions permit.

This area is worth spending some time on. Look carefully at the Rima Hyginus and see if you can make out crater pits along its length. Look at the rilles round Triesnecker and note their convolutions. These features respond well to photography and it's worth a try to see how much detail you can capture. The accompanying photograph shows the area of the Moon in question and it should be noted that the orientation is as seen directly through a refractor or a Newtonian reflector, i.e. inverted by 180° rotation.



Forgotten women of NASA

Mae Jemison M.D. Starting Stanford University at the age of 16, graduated with bachelor's degrees in Chemical Engineering and African Studies. Then moving to Cornell University to study and earned her Doctorate in Medicine. In 1987 was one of 15 individuals from among 2000 applicants to train as an NASA astronaut finally being launched into space on 12th September 1992 aboard the space shuttle Endeavour. Spending over 190 hours conducting life sciences, material and medical experiments.

The recipient of many awards and honours. She is a member National Academy of Medicine, the Women's Hall of Fame and the International Space Hall of Fame.



Monthly Challenge

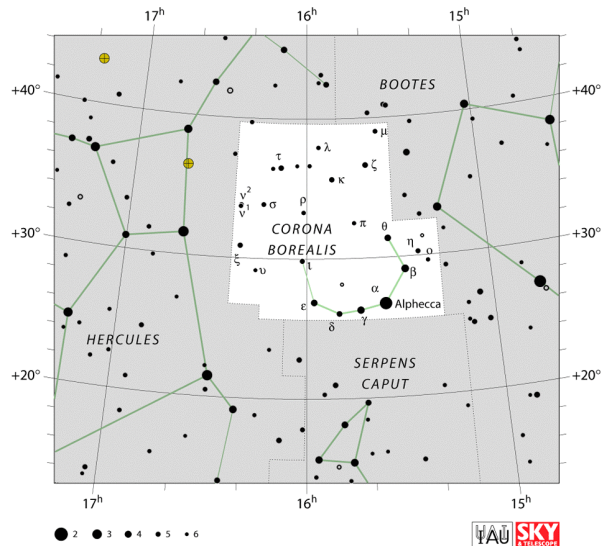
Staying in Auriga, lets move onto to the Flaming Star Nebula (IC405). This Nebula is an emission / reflection nebula surrounding the star AE Aurigae.

Now look to the Bowl of Virgo for this one. Minor Planet 18 Melpomene. Magnitude for this object varies from +7.5 to +12 should make it visible in binoculars. Go outside and see if you can spot it or grab an image (weather permitting). Image courtesy of Sky at Night Magazine



Jim's Focus of the Month

This month let us look at Corona Borealis. The name means the Northern Crown. There are only 3 stars brighter than Magnitude +3 in the constellation, but it is easily recognisable as it sits between Bootes and Hercules. I can only find one deep sky object associated with this constellation, that being a galaxy cluster Abell 2065.



However, the brightest star in the constellation is Alphecca (Gemma) – α Coronae Borealis, an eclipsing binary star with a period of 17.36 days. With a magnitude varying between +2.21 and 2.32 it should be easily seen in binoculars. This is one of Pam Foster’s stars in her Variable Star project.

Did You Know?

6th March 1986, USSR’s Vega 1 probe flies by Comet Halley returning the first close-up pictures

8th March 1987, Japanese spacecraft Suisei flies past Comet Halley.

6th March 1926, Robert Goddard American Physicist launches the first liquid fuelled rocket.

29th March 1974, Mariner 10 makes its flyby of Mercury, returning the first pictures of the planet.

Remember to put your timepieces 1 hour forward on the 25th of the month when we will be in BST

Jim Barber

Director of Observations

Dundee Astronomical Society