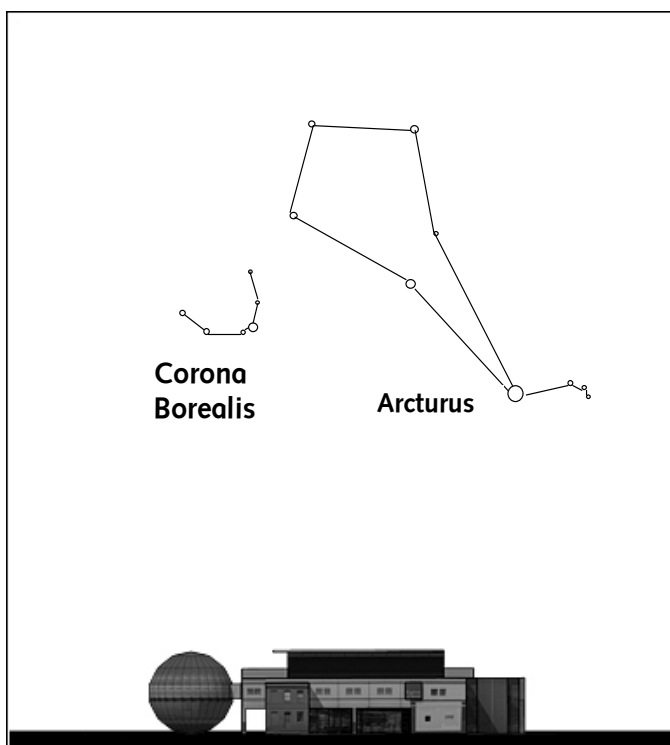


July night sky

High summer is here and warmer temperatures are ideal for star gazing. You might have to stay up quite late or get up quite early, but on a clear night it will be worth it! Here are some of the highlights you can see this month...

Constellation of the month – Corona Borealis

This month's constellation to look out for is Corona Borealis. A tiny heavenly gem, Corona Borealis (the Northern Crown) flies high in the summer skies. According to Greek legend it was the crown given from Bacchus to Ariadne as a wedding present. For the month of July, the crown-like shape of Corona Borealis can be seen high up in the south-western sky.



Finding Corona Borealis

The easiest way to find your way around the bright summer skies is to use the brightest stars as signposts. First, look for the pattern of stars known as the Plough or Big Dipper. The Plough is made of seven stars in the shape of a saucepan and can be seen high in the sky if you are facing northwest. Draw an imaginary arcing line from the handle end of the plough and you come to the bright yellow star Arcturus in the constellation Bootes. (Hint: you can remember this because the line 'Arcs to Arcturus'). Now take a look to the southeast of Arcturus and you will see seven stars in a crown or necklace shape, with the brightest one in the middle. This is Corona Borealis.

News flash: NASA to release online video game!

On July 6, 2010, NASA will release a new online video game: Moonbase Alpha. Moonbase Alpha is a game with single and multiplayer options where players step into the role of an exploration team member in a futuristic 3-D lunar settlement. Their mission is to restore critical systems and oxygen flow after a nearby meteor strike cripples a solar array and life support equipment. The game aims to show how NASA content could be combined with a cutting-edge game engine to produce an experience that inspires interest in science, technology, engineering and maths.

For more information about Moonbase Alpha, visit:

<http://www.nasa.gov/moonbasealpha>





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The planets in July

Mercury	is close to the Sun and cannot be seen from Earth.
Venus	is moving through Leo this month.
Mars	is heading east through Leo and Virgo and setting around 11.30pm.
Jupiter	is in Pisces and rises at around 0.30am.
Saturn	is to the east of Mars in the constellation Virgo.

Theme of the month: Weather satellites

Do you want to know whether it will rain for your picnic or be sunny on your day trip? Nowadays it is easy to find out by looking at weather satellite pictures on the TV or internet.



How do they work?

Weather satellites take pictures of the Earth from above, helping scientists understand what the weather is doing and what might happen next. They give full coverage of the entire Earth. Every cloud system and storm can be seen as it forms and changes.

Are there different types?

Some weather satellites always hover over the same part of the Earth's surface. They stay in geostationary orbits, 36 000 km above the equator. Others circle the Earth from the North to the South Pole and back. They travel much nearer to the surface (some as low as 800 km) and provide highly detailed, close-up pictures of weather systems all over the world.



Metop-A weather satellite in polar orbit (ESA)

How good are they?

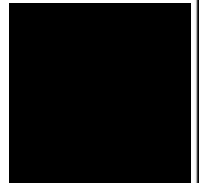
Forecasts within 3 days are 85% accurate for temperature, 27% for rainfall. However, for 7 or 10 days, accuracy goes down dramatically.

Moon Calendar

04 July
Last Quarter



11 July
New Moon



18 July
First Quarter



26 July
Full Moon



Would you like to know more?

Details of our planetarium shows and back issues of this night sky guide can be found at:
<http://www.at-bristol.org.uk/theplanetarium>

Stellarium is a planetarium program for your computer, showing a realistic 3D sky just as you would see if looking with your eyes or a telescope. Best of all, it's completely free. Download it at www.stellarium.org

Heavens Above is a website that lets you create customised sky maps and see when satellites like the International Space Station will be visible. Head over to www.heavens-above.com and try it out.

Do you have an astronomy question for the At-Bristol planetarium team?

E-mail lee.pullen@at-bristol.org.uk and our keen astronomers will try to quench your thirst for knowledge!