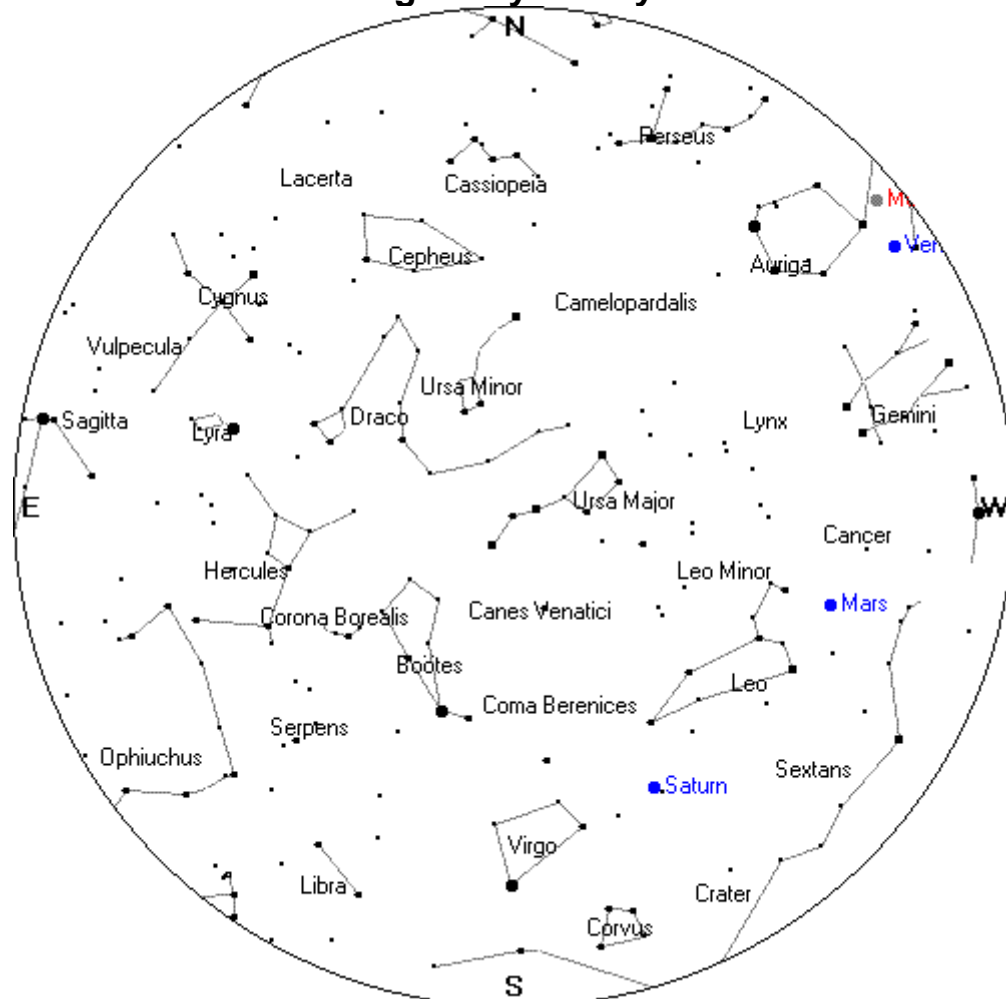


Dundee Astronomical Society The Night Sky in May 2010



The Sky at 10pm on 15th May 2010

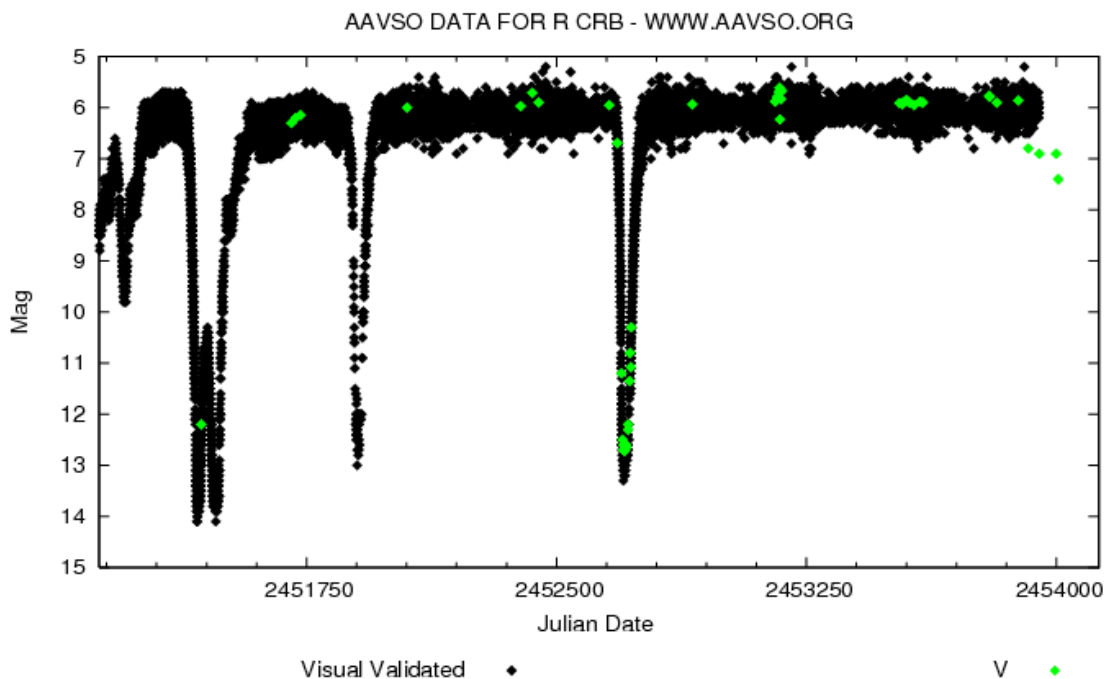
[chart courtesy of www.heavens-above.com]

As the nights shorten at our northerly latitude there are fewer stars to be seen as the spring constellations contain far fewer bright stars than those of winter. The constellation Virgo is quite low in the south by late evening although most of its stars are not very bright. The brightest star, Spica, can be seen against the twilight sky and it is a blue giant at a distance of 260 light years. Spica is a binary star whose close companion orbits in 4 days. The main star of the two is also a rapid variable which varies in brightness every 0.1738 days.

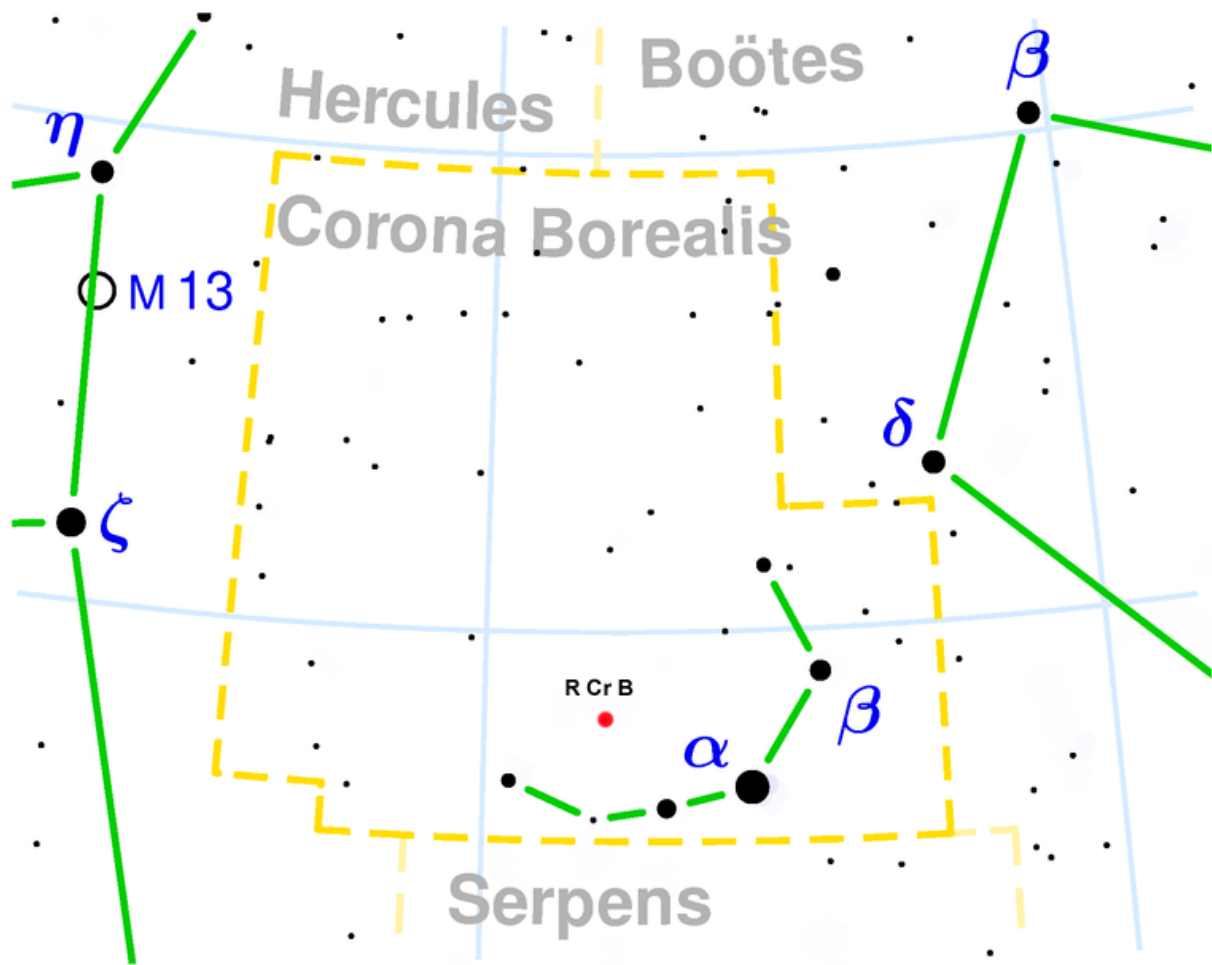
Looking higher in the southern sky there is an even brighter star, Arcturus, the first star of the constellation Boötes and the third brightest in the entire sky. The mythology of Boötes is quite diverse and he is said to have been the inventor of the plough, a herdsman, a bear driver and a wine maker, among many other possibilities! It is interesting to compare the colours of Spica and Arcturus as Arcturus is an orange giant, similar to that which our own Sun will become in a few billion years. It is at a distance of 36.7 light years and, unlike many distant stars, it is possible to measure its motion in the sky. It will be closest to the Sun in about 4,000

years and will then recede after that as both stars continue to orbit the galaxy at different speeds.

Just east of Boötes is the constellation of Corona Borealis. The stars are quite faint and so the delicate crown is difficult to see against the brighter late spring sky. An interesting star in Corona, but one you will not easily see, is R Coronae Borealis (R Cr B). This is another variable star, discovered by Edward Pigott in 1796, but this star rapidly dims occasionally rather than brightens. It is thought that carbon, or sooty clouds, form and quickly block much of the star's light. The magnitude range is about 5.7 to 14.8 but the dimming is irregular. It has been at magnitude 14 since 2007, one of the longest periods at minimum.



Light curve of R Cr B showing irregular dimming.



Can I ask everyone to keep an eye on the northern sky after sunset towards the end of the month? Noctilucent Clouds (NLC) have traditionally made their first appearance in the last 10 days or so of the month and, once again, I would be grateful for any sightings then (and throughout the season until mid August). I would also ask anyone who has negative sightings, i.e. no NLC in a clear sky, to give me dates and times for these negative sightings. These are especially important in late May, but, with the number of NLC seen throughout the recent summers, it might be useful at any time during the season as changing solar radiation MAY have the effect of reducing NLC frequency.

Mercury may be seen with some difficulty low in the east just before sunrise in mid May.

Venus will continue to be seen towards the north west in later evening throughout the month and will remain a brilliant object.

Mars moves from Cancer into Leo during May and will be in the south west in late evening.

Jupiter rises at about 2am in mid month and will be seen in the early morning sky quite low in the south east.

Saturn is still quite well placed in Virgo during May and will be seen east of Mars during most of the late evening and early morning.

Uranus is still in Pisces and Neptune is in Aquarius. Both may be seen before sunrise but will be low in the south east, either side of Jupiter.

The Moon is at last quarter on the 6th, new on the 14th and at first quarter on the 20th and full on the 27th.

Bill Samson of Dundee Astronomical Society will give a talk entitled 'Astronomy with Binoculars' on Sunday 16th May at 1.30pm. This will advise on how to choose binoculars and what can be seen with them in the sky.

Ken Kennedy
Director of Observations