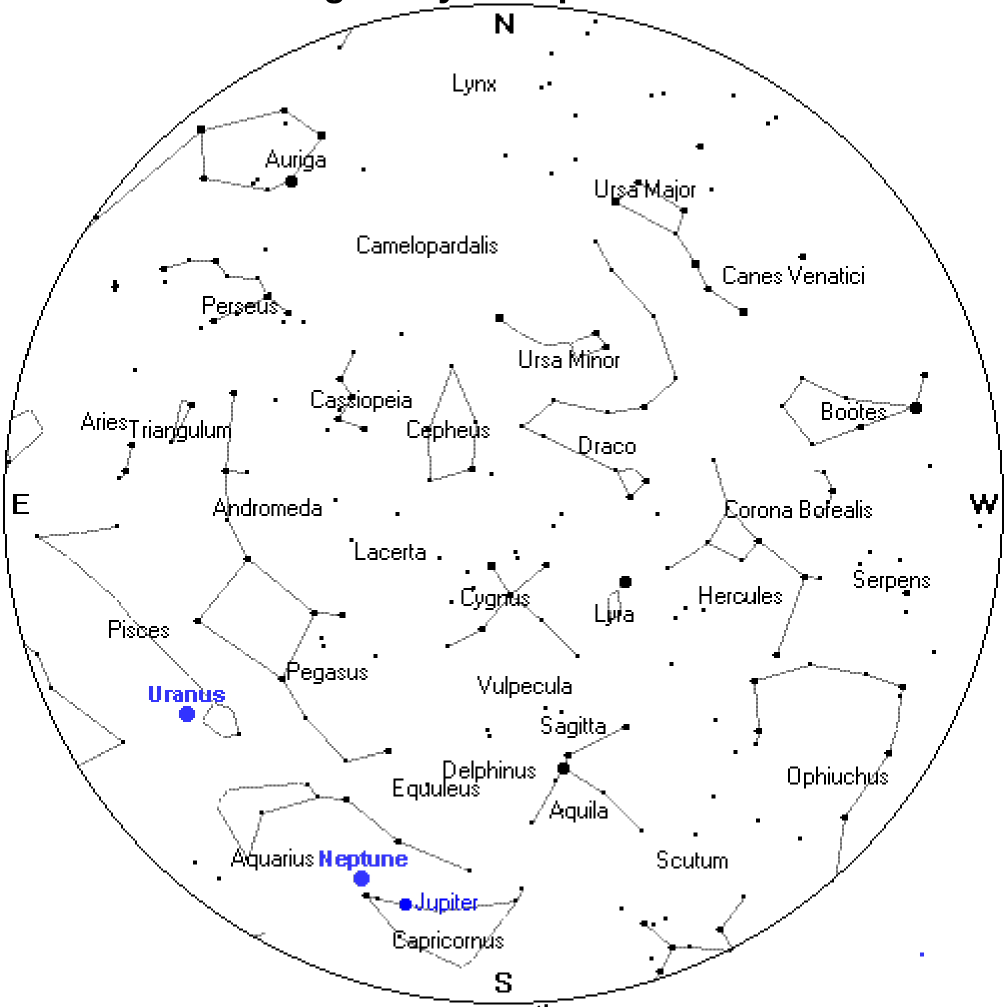
Dundee Astronomical Society

The Night Sky in September 2009

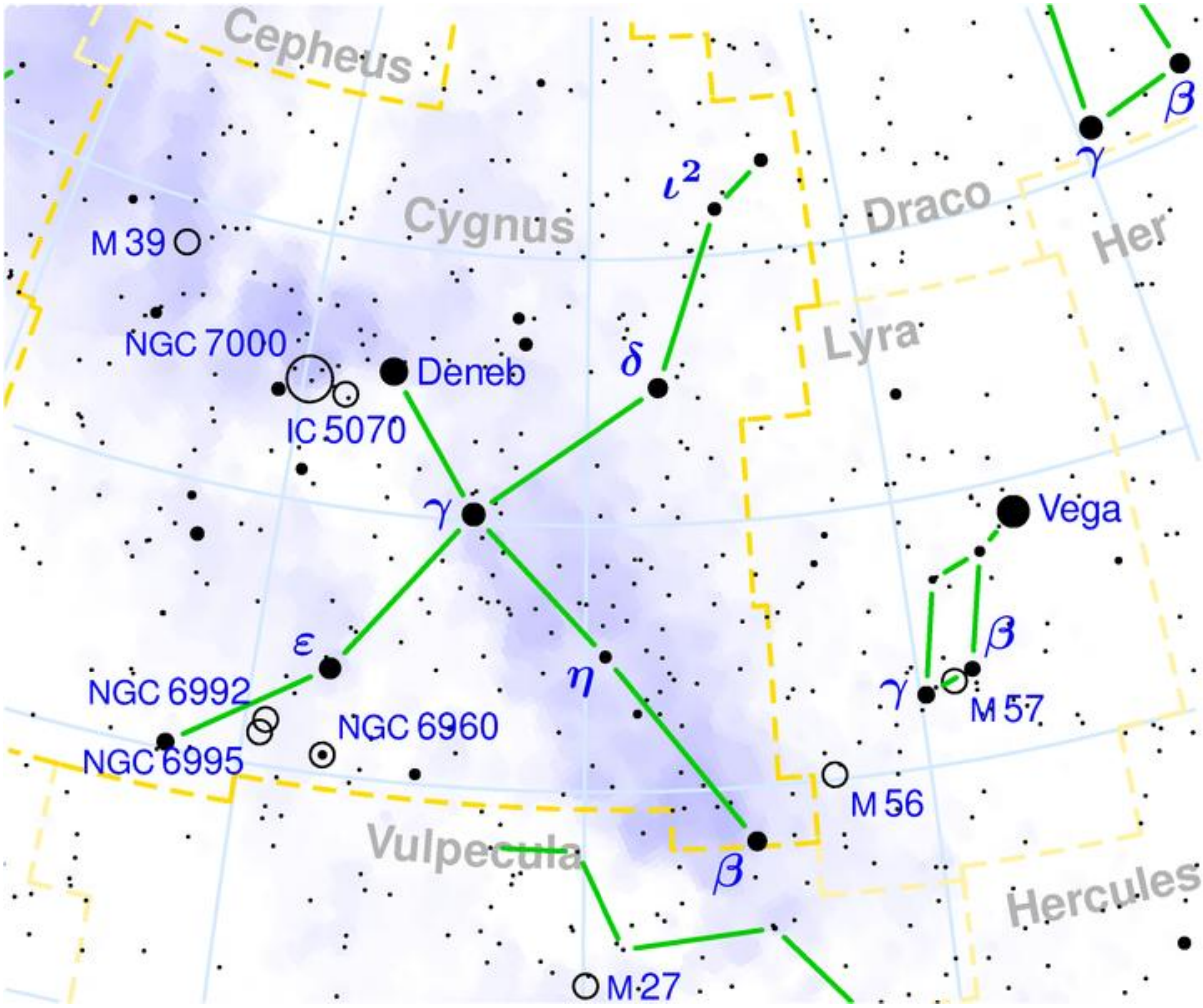


The Sky at 9pm on 15th September 2009

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

During September, look up to almost overhead and you will see a distinct elongated cross running along the faint background of the Milky Way. This is Cygnus, the Swan, or Northern Cross. There are many stories in mythology about Cygnus, one that the swan was Zeus in disguise and another that the great musician, Orpheus, was transformed into the swan after his death and placed in the sky next to his lyre, the constellation Lyra. The brightest star of Cygnus is the white supergiant, Deneb. Although Deneb is only the 19th brightest star in the sky, it is about 60,000 times the luminosity of our Sun and is 200 times its diameter. It is 1,550 light years distant. Being a very large star with a short lifespan, Deneb will become a supernova in a few million years time when it will explode and become a brilliant object in the sky for a short time.

Just next to Cygnus is the smaller constellation of Lyra. The brightest star, Vega, is the 5th brightest in the sky but in contrast to Deneb it is only 25 light years away and is a much smaller star. Because of the Earth's wobble, Vega will become the pole star in the year 13727 AD. Not far from Vega is the Ring Nebula, discovered in 1779 and given the number 57 in Charles Messier's catalogue of 1784. Through a



medium sized telescope it appears as a perfect and tiny ring and marks the explosive end of a Sun sized star. Our own Sun will become such an object in about 5 billion years. It lies at a distance of 2,300 light years.

The Moon is full on the 4th, at last quarter on the 12th, new on the 18th and at first quarter on the 26th.

Mercury will be seen from about the 23rd September until the end of the month low above the eastern horizon about 40 minutes before sunrise.

Venus will remain in the morning sky quite near to Mercury but will gradually become lower as the month progresses and will move towards Mercury in early October.

Mars, in Gemini, rises at about 11pm in mid September and will be recognised in the south east at about 3am by its steady orange glow. It still presents a very small disc which will show little even in moderate sized telescopes.

Jupiter is at its best for observation during most of the night towards the south. It is still low in the sky however, but binoculars or a small telescope will reveal the four main satellites.

Saturn will not be seen during September as it is behind the Sun.

Uranus is at opposition on the 17th in Aquarius at declination -3 degrees and has a diameter of 3.9 arcseconds. It's worth a look with a moderate sized telescope to see the blue green disc.

Neptune is well placed in Capricornus but its declination is -13 degrees. It is quite close to Jupiter and a search will soon find a tiny blue disc (2.5 arcseconds) at magnitude 7.8.

The weak Piscid meteor shower has two peaks one on the 8th and another on the 21st. The maximum expected is not more than 10 per hour and probably less. The Moon is 19 days old on the 8th and this will further reduce the number of meteors seen.

Ken Kennedy
Director of Observations
Dundee Astronomical Society