

Dundee Astronomical Society The Night Sky in March 2010



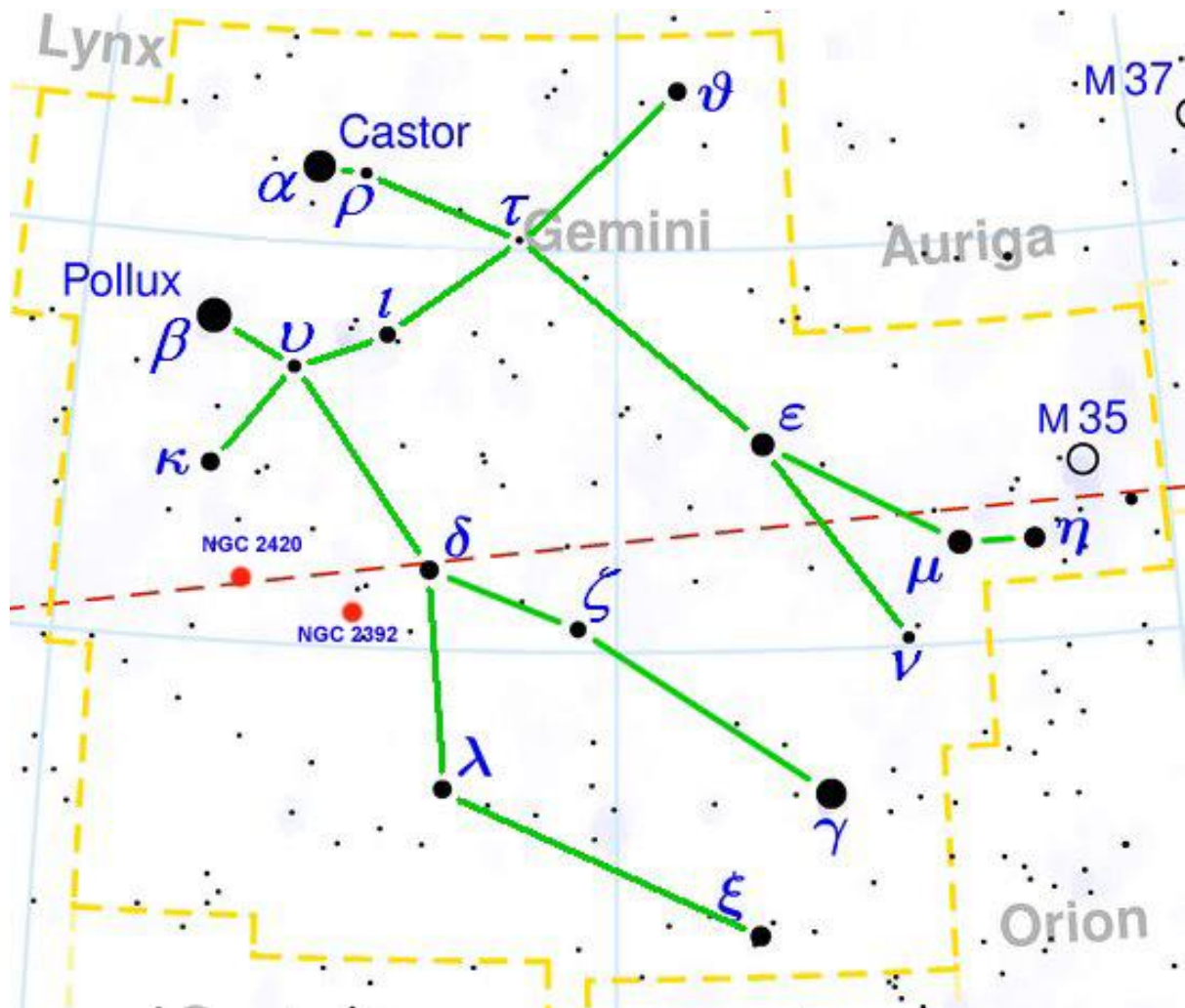
The Sky at 8pm on 15th March 2010

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

By 8pm in mid March, the constellation Gemini is high in the south. Orange coloured Mars will still be quite close to the two brightest stars of Gemini, Castor, to the right, and Pollux on the left. These stars take the names of the twins who, in Greek mythology, were half brothers. We often come across these awkward facts in Greek mythology which are particularly difficult to explain to children at planetarium shows! Often best to gloss over the antics of Zeus! Zeus was father of Pollux and because of this Pollux was immortal but Castor was not and when he was killed, Zeus allowed Pollux to give his brother half of his immortality and both were placed in the heavens. The fact that the brothers were not identical twins is reflected in the stars which carry their name. Castor is a multiple star whose components are mainly blue-white and at a distance of 51 light years while Pollux is a red giant star 34 light years away.

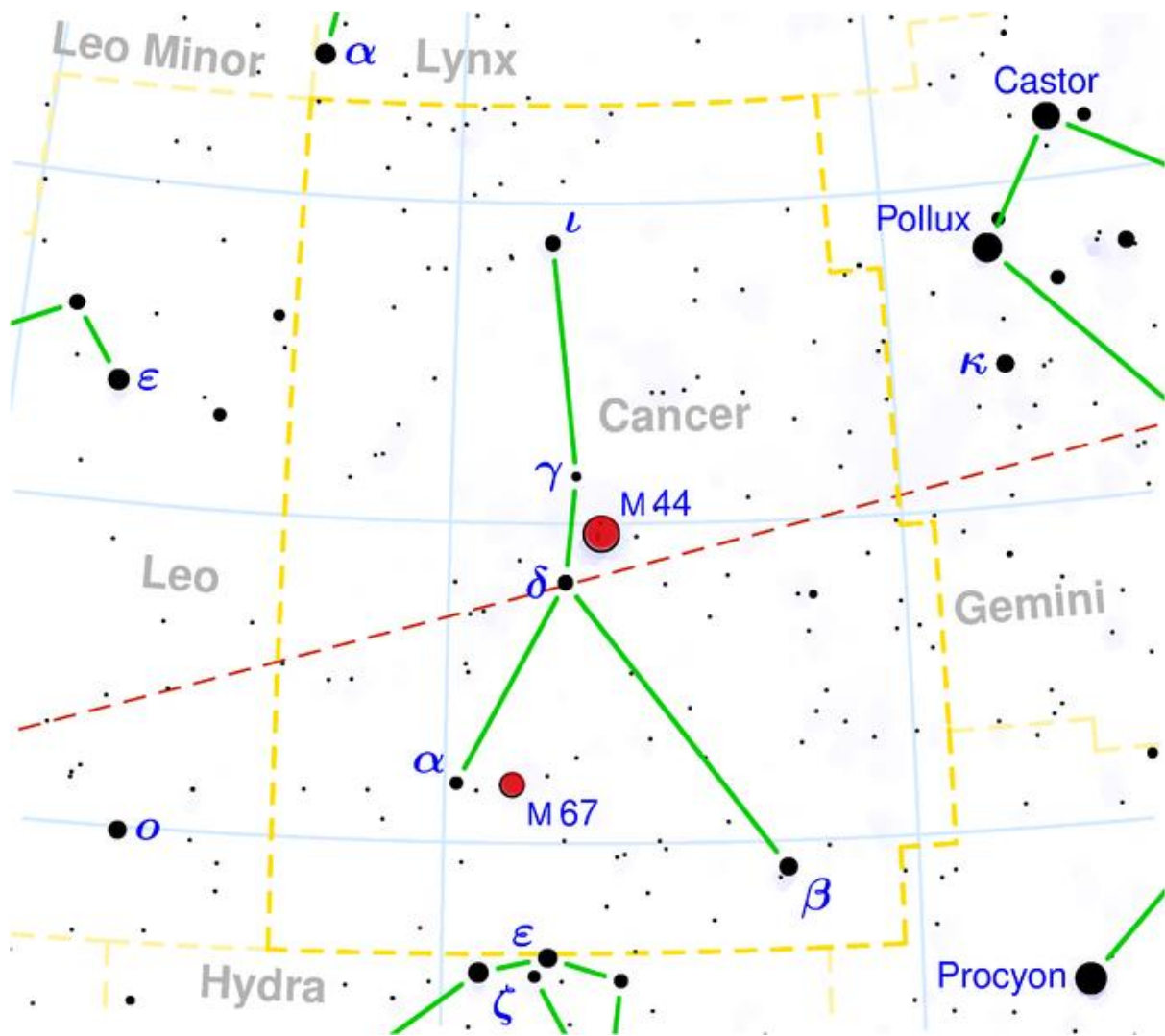
There are at least two interesting objects in Gemini. The open cluster, NGC 2420 is quite small and requires a moderate telescope although it is at magnitude 8.3. This cluster is 7,000 light years distant and is about one billion years old. The other object is the Eskimo Nebula, NGC 2392. A planetary nebula at magnitude 10.1 it

can be fairly easily seen on dark moonless nights with a moderate telescope and is a good subject for CCD imaging.



Mars is actually in the nearby constellation of Cancer which contains no stars of significant brightness. Mythology tells us that the goddess Hera sent a crab to distract Hercules while he fought the Hydra. Hercules quickly stood on the crab and squashed it but Hera honoured its efforts by placing it in the sky. Herein lies another interesting twist in Greek mythology in the relationship between Hera, Zeus and Hercules! The most interesting object in Cancer is the open star cluster, 44 in the catalogue of Charles Messier also called the Beehive. Galileo first observed the Beehive in 1609 with a telescope and resolved about 40 stars. It is now known to contain more than 1,000 stars. At magnitude 3.7 this can be seen by the unaided eye as a hazy patch on a dark moonless night but is best seen using binoculars. The cluster is at a distance of about 580 light years and is 600 million years old.

Another open cluster of interest in Cancer is M67. This is the oldest open cluster known at 4 billion years. There are about 500 stars in this cluster but there are none bluer than type F as many of the brighter stars have left the main sequence and many are waiting to do so fairly soon. The cluster is at a distance of 2,700 light years and has a brightness of magnitude 6.1.



As mentioned last month, the Sun continues to be active and, at the time of writing, there have only been two days in 2010 when no spots were visible on its surface. After several years of very low activity it seems that the new solar cycle has really started. As if just to make the point, the first aurora to be seen from Scotland for several years was reported on the 15th February.

Mercury will be visible in the evening sky at about 7pm low in the west from about the 22nd until the end of March. Mercury is at superior conjunction on 14th March.

Venus will remain visible low in the west during March and will be quite close to Mercury later in the month. It will set about two hours after the Sun by the end of the month.

Mars will remain high in the evening sky and will set by 1am at the end of the month. As it becomes more distant it will become less bright and its diameter will shrink to 9 arc seconds.

Jupiter is not well placed during March and will rise at 5.30am mid month.

Saturn will be seen in Virgo throughout the later part of the night. The rings are presented at only a small angle which decreases slightly through March. Saturn is at opposition on March 22nd.

Neither Uranus nor Neptune is in a suitable position for observation during March.

The Moon is at last quarter on the 7th, new on the 15th and at first quarter on the 23rd and full on the 30th.

Ken Kennedy
Director of Observations
Dundee Astronomical Society