

## PROGRAMME Jan/Feb 2010

All talks and use of observatory equipment is free and members of the public are very welcome to attend the meetings and visit the observatory. We meet every Friday at 7.30PM at Airdrie Arts Centre unless otherwise stated. Please check web site or contact curators for further information

**05 February** Cairns Mason Sundials and their uses in 17th century Scotland. Cairns is the husband of Dr Catherine Mason Smith who gave us the popular talk last year on Robert Burns. This talk will be equally as informative and interesting.

**12 February** Arthur Bannister The Constellations of the Zodiac - AQUARIUS - Second talk in a series of 12 by Arthur

**19 February** Paul Clark "How Things Work" - Science onboard the ISS - Second talk in a series of 12 by Paul

**26 February** Observatory Meeting Airdrie Public Observatory will be open between 7:30 and 9:30 for views of the night sky. Should weather not permit viewing, we will have a video evening instead

**05 March** Arthur Bannister The Constellations of the Zodiac - PISCES - Third talk in a series of 12 by Arthur

**12 March 2010** Paul Clark "How Things Work" - Radio Astronomy - Third talk in a series of 12 by Paul

**19 March 2010** Observatory Meeting Airdrie Public Observatory will be open between 7:30 and 9:30 for views of the night sky. Should weather not permit viewing, we will have a video evening instead

**26 March 2010** All Members Ten Minute Talks - Come along and enjoy a varied series of 10 minute talks on a whole array of subjects by our members. These usually prove very popular. Why not present a short talk yourself if you feel brave?

AIRDRIE ASTRONOMICAL ASSOCIATION  
Registered Charity SC041014



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AIRDRIE PUBLIC OBSERVATORY

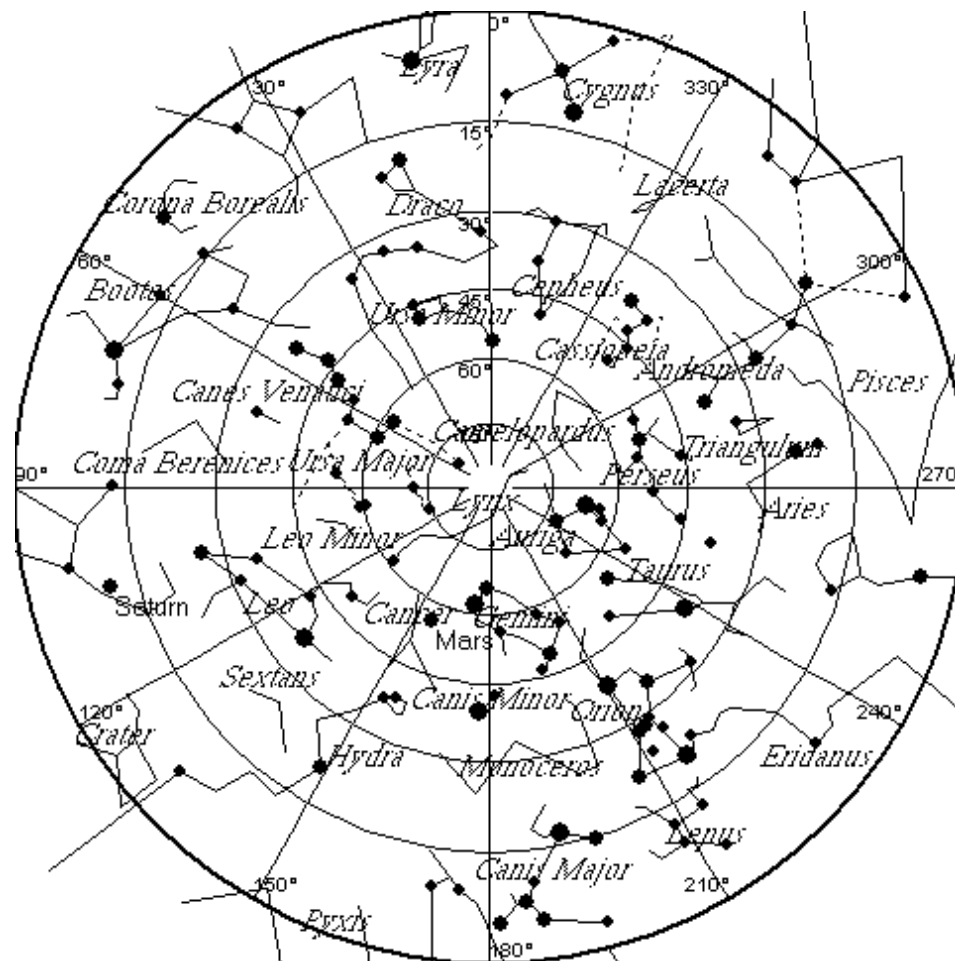
**THE NIGHT SKY February 2010**

Edited by Raymond McCall



### OBSERVATORY KEY HOLDERS

**Paul Clark - Curator** (phendrixx@aol.com) Tel. 01236 770389  
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**The night sky 10 pm GMT Mid February above  
Airdrie Public Observatory**

## February 2010

**The Sun** is in the constellation of Capricornus at the start of February, moving into Aquarius on the 16th. At the start of the month, in central Scotland, sunrise is at 8:10 am and sunset is at 4:40 pm; at the end of the month, sunrise is at 7:05 am and sunset is at 5:45 pm. In mid-February the sky is reasonably dark between about 6:30 pm and 6:15 am. **REMEMBER** If you intend to do solar observing, always use the projection method. If you are unsure of this procedure, please ask some of the members for clarification. **Never look at the Sun with the naked eye!**

**Mercury** At the start of February, Mercury is rising about an hour before the Sun, but it will be very hard to find this elusive little planet in the dawn sky. By the end of the month, it is disappearing behind the Sun.

**Venus** was behind the Sun last month, and it is now starting to emerge into the evening sky. By the end of February, try looking to the west immediately after sunset; Venus is so intensely bright, it may show up even when the sky is still quite light. We will get better views of the "Evening Star" later in the year.

**Mars** was at its closest to Earth last month, and it's still very well placed for viewing. The "Red Planet" is already visible in the east at dusk, and it's high in the southern sky in the late evening. Relative to the stars, Mars is moving quickly westwards in Cancer. But it's brighter than any of the other stars in that part of the sky. The only object to rival Mars is the bright star Sirius, but that is much lower down, and it twinkles different colours; Mars shines with a steady orange light. In the telescope, the disc of Mars is still 13 arc-seconds across this month; it should be possible to make out some detail, such as the small white cap at the north pole. The southern regions of Mars generally appear darker; under good conditions, it may be possible to make out individual dark features. On the evening of Thursday February 25th, the waxing gibbous Moon will be about 6 degrees to the lower right of Mars.

The giant planet **Jupiter** is hidden behind the Sun this month.

**Saturn** is rising in the middle of the evening, and it crosses the southern sky in the early hours of the morning. Relative to the stars, it's moving very slowly north-westwards in Virgo, above and to the right of Spica, and well to the right of Arcturus. Saturn is intermediate in brightness between these two stars (Spica and Arcturus), but it shines with a steadier light than a star. In a telescope, the disc of Saturn appears 19 arc-seconds across, and may show faint banding. The famous rings form a narrow oval, 43 arc-seconds wide and 3 arc-second high. Many of Saturn's moons can also be seen in the telescope. The largest and brightest is Titan, which will be close to the north of the planet around February 3rd and 19th, 3 arc-minutes east of the planet around the 7th and 23rd, close to the south of it around the 11th and 27th, and 3 arc-minutes

west of it around the 15th. When our own waning gibbous Moon rises late in the evening of Monday February 1st, Saturn will be about 15 degrees to its lower left. The following evening, the Moon will be about 8 degrees to the lower right of Saturn.

### Highlights of the Month

#### **Evening Feb 14-17th: Venus and Jupiter together after Sunset:**

Given a low south-western horizon and a clear night you will have a chance to see a close conjunction of the two brightest planets at about 5:30 pm, just after sunset. Jupiter is moving towards the Sun, so getting lower in the sky whilst Venus is moving away so getting higher in the sky. Their closest approach is on the 16th February when they are just 4 degrees above the horizon with a very thin crescent Moon hanging in the sky above. This should be a lovely sight, so lets hope that it is clear!

#### **11th to 20th February: Spot the asteroid Vesta:**

At magnitude +6.1, Vesta is the brightest minor planet or asteroid. It has a diameter of 530 km and is the second most massive asteroid in the "main belt" between Mars and Jupiter. The chart shows its motion across the sky in mid-February. It will probably be easiest to find as it passes between the stars Algieba and 40 Leonis on the 16th of the month. You will need binoculars or a small telescope.

#### **Feb 21st The Moon occults some of the stars in the Pleiades Cluster :**

At around 18:50 GMT on February 21st, the Moon at first quarter will occult the very pretty arc of stars that extends down to the left of the Pleiades Cluster. As the leading limb of the Moon is in darkness, it will be nice to see the stars disappear from sight without an obvious cause!

**Find M31 - The Andromeda Galaxy and, perhaps, M33 in Triangulum:** In the evening, the galaxy M31 in Andromeda is visible reasonably high in the west. The chart provides two ways of finding it:

- 1) Find the square of Pegasus. Start at the top left star of the square - Alpha Andromedae - and move two stars to the left and up a bit. Then turn 90 degrees to the right, move up to one reasonably bright star and continue a similar distance in the same direction. You should easily spot M31 with binoculars and, if there is a dark sky, you can even see it with your unaided eye. The photons that are falling on your retina left Andromeda well over two million years ago!
- 2) As Pegasus sinks towards the horizon, you can also find M31 by following the "arrow" made by the three rightmost bright stars of Cassiopeia down to the lower right as shown on the chart.

**M33:** Having found M31, if you backtrack to the star where you turned sharp right and continue on for the same distance you may be able to spot the face on spiral galaxy, M33 in Triangulum if the skies are very dark and transparent. Binoculars will only show it as a faint smudge against the darker sky background. Sadly, quite a large telescope is required to see any detail. Good Hunting!

For more information regarding the Highlights of the Month have a look at <http://www.jb.man.ac.uk/astronomy/nightsky/#highlights>