

PROGRAMME April/May 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

2nd April Arthur Bannister The Constellations of the Zodiac - PISCES - Fourth talk in a series of 12 by Arthur

9th April Aileen Malone 40th Anniversary of Apollo 13. (11th to 17th April 1970)

16th April TBC The Airdrie Committee are finalising a guest speaker for this evening. Details will appear here soon.

23rd April Paul Clark "How Things Work" - Launchpads & Jungles - Fourth talk in a series of 12 by Paul

30th April Aileen Malone Airdrie Public Observatory Celebration Night. Celebrating The Observatory's 114th anniversary.

7th May All Video Night - Subject to be determined closer to the date.

14th May Arthur Bannister The Constellations of the Zodiac - ARIES - Fifth talk in a series of 12 by Arthur

21st May Paul Clark "How Things Work" - Astronaut Training School - Fifth talk in a series of 12 by Paul

28th May A.A.A. AGM It's one year since A.A.A. was formed. As a member come along and make your contribution to our growing and prospering society which dates back 114 years

AIRDRIE ASTRONOMICAL ASSOCIATION
Registered Charity SC041014



ESTABLISHED 1896

AIRDRIE PUBLIC OBSERVATORY

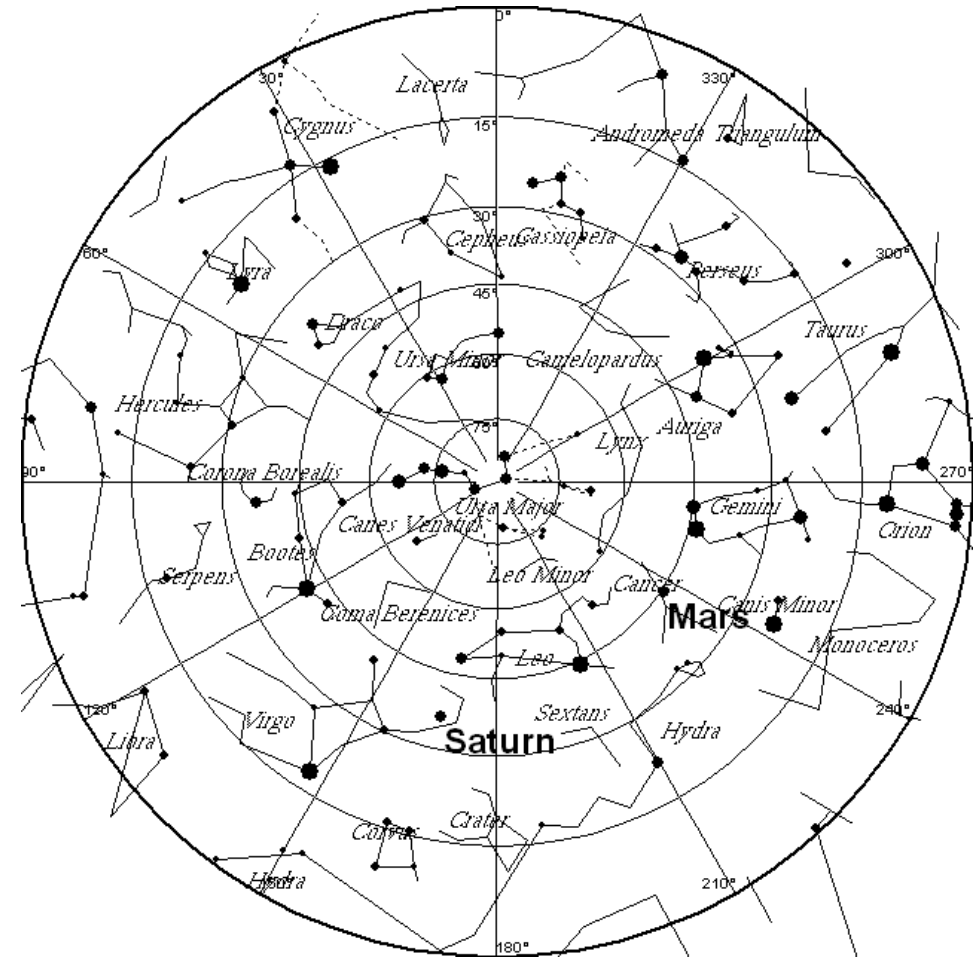
THE NIGHT SKY April 2010

Edited by Raymond McCall



OBSERVATORY KEY HOLDERS

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**The night sky around 10pm mid April above
Airdrie Public Observatory**

April 2010

The Sun is in the constellation of Pisces at the start of April, moving into Aries on the 19th. At the start of April, in central Scotland, sunrise is at 6:40 am, and sunset is at 7:50 pm; by the end of the month, sunrise is at 5:30 am and sunset at 7:50 pm. In mid-April, the sky is reasonably dark between about 10:00 pm and 4:30 am (all times BST). **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 is at its greatest elongation east of the Sun on April 8th. So this month we have an unusually good chance to spot the planet, in the western sky after sunset. Any evening during the first week of April, try looking out to the west about 9 pm. The very bright planet Venus should be obvious. Mercury will be to the right of Venus, about three degrees away – the breadth of a finger at arm's length, or perhaps a little more. Mercury is much fainter than Venus, but it should still be visible with the naked eye. By the middle of the month, Mercury is falling away below Venus, and getting even fainter. But if you can find the very new crescent Moon on the evening of Thursday 15th, Mercury will be close to the upper left of it. By April 28th, Mercury is at inferior conjunction – almost directly in front of the Sun.

Venus is now becoming easy to see, low in the west after sunset; it doesn't set until at least two hours after the Sun. The "Evening Star" is so brilliant, it can be seen even against a bright twilight sky. Relative to the stars, Venus is moving rapidly north-eastwards. It leaves Aries and crosses into Taurus on April 20th, and passes below the Pleiades or "Seven Sisters" star-cluster towards the end of the month. In the telescope, Venus usually appears as a featureless white disc; but it shows phases, like the Moon. This month Venus appears like the Moon shortly before Full, though since the disc of Venus is only 11 arc-seconds across, the phase won't be easy to detect. On the evening of Friday 16th, the narrow crescent Moon will stand directly above Venus, just 5 degrees away.

Mars is high in the southern sky at dusk, and it doesn't set in the north-west until dawn. Relative to the stars, Mars is moving steadily eastwards through the constellation of Cancer, passing just north of Praesepe, the "Beehive" star-cluster. Mars is heading away from Castor and Pollux, the "Twin" stars of Gemini, and moving towards Regulus, the brightest star in Leo. The "Red Planet" actually shines with a steady orange glow, and it appears brighter than any of the nearby stars. In the telescope, the disc of Mars is barely 8 arc-seconds across this month, so it will be difficult to make out any features on its surface. On the evening of Wednesday April 21st, the First-Quarter Moon will be below Mars, about 7 degrees away.

Jupiter is rising in the east less than an hour before sunrise; it will be very difficult to see the giant planet this month.

Saturn was at opposition to the Sun on March 22nd; this month it's very slightly further away from us, but rather more conveniently placed for evening

viewing. It rises in the east in the late afternoon, and it reaches its highest point in the sky, due south, in the late evening; it doesn't set in the west until sunrise. Relative to the stars, it's moving slowly north-westwards in Virgo. It's about midway between the bright star Regulus in Leo, to its upper right, and the slightly brighter star Spica in Virgo, to its lower left. But Saturn appears slightly brighter even than Spica, and it shines with a steadier light than any of the stars. In the telescope, Saturn shows a disc 19 arc-seconds across; under good conditions, faint bands of cloud may be visible on its surface. Its rings appear as a narrow oval, 44 arc-seconds across and only 2 arc-seconds high. Many of Saturn's moons can also be seen in the telescope; the brightest one is Titan. Titan will be 3 arc-minutes to the west of Saturn around April 4th and 20th, very close to the north around the 8th and 24th, 3 arc-minutes east around the 12th and 28th, and very close to the south of the planet around the 16th. On the evening of Sunday April 25th, our own gibbous Moon will appear below Saturn, about 8 degrees away.

Highlights of the Month

First week of April: Venus and Mercury close in the twilight sky

Given a low westerly horizon and a clear night you will have a chance to see Venus and Mercury just a few degrees apart about 30 minutes after sunset. Until April 7th both are moving away from the Sun so getting higher in the sky after sunset. From the 8th April, Mercury begins to move back toward the Sun and by the 21st of the month will be very difficult to spot in glare of the sunset. Their closest approach, at 3 degrees separation, will be on April 4th. This is the best evening apparition of Mercury this year and occurs as, at this time of the year, the ecliptic is well inclined to the evening horizon. On the 15th April, Mercury is just below a very thin (one day old) crescent Moon. You will need a very clear low western horizon to have a chance of spotting this!

The Lyrid meteor Shower on the night of 22/23rd April

The Lyrid Meteor Shower - so called as the radiant (from where the meteor trails seem to radiate from) lies in the constellation Lyra. It peaks in the early morning of the 22nd April and is a reliable, though not spectacular, shower with perhaps up to 15 meteors seen per hour. Observations of the Lyrid meteors have been made for at least 2,600 years! This year the peak of activity is close to the first quarter moon which, happily, will have set before the best time to observe the shower. Observations made after 1 am are expected to be the most productive. The dust particles that cause the shower have been released by the comet Thatcher, discovered in 1861. Occasionally we pass through a dense clump of particles as happened in 1982 when over 90 meteors were seen per hour. So it's worth waking up to have a look if clear around 1-2 am.

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