

Dance of the planets in the evening sky

February 19 2015, by Mark Bailey



View of the planets Uranus, Venus and Mars in the early evening western sky after sunset, as seen from Armagh at 7.00pm on 1 March 2015. Venus comes within half a degree of Mars on 21 February, and within approximately a tenth of a degree of Uranus on 4 March. It plays the role of a celestial signpost to help observers locate the other two, much fainter, planets. Mars is approximately 110 times fainter than Venus, and Uranus is approximately 70 times fainter than Mars, or some 7500 times fainter than Venus.

Armagh Observatory reports that the next two weeks provide a rare opportunity to observe the planets Venus, Mars and Uranus in the western evening sky after sunset, and the bright planet Jupiter rising high in the East about the same time.

Venus is moving rapidly higher in the sky after sunset, and passes first close to Mars and then, in early March, very close to Uranus. Venus is



the brightest "star" in the evening sky, and shines with a brilliant white light. Mars, with its distinctly red colour, lies nearly exactly in the same direction in space, and the two planets pass one another on 21 February within an angular distance of less than half a degree, the angular diameter of the Moon.

Venus continues its rapid daily motion against the background stars, and passes the faint planet Uranus on 4 March, the two planets then being separated by a tiny distance of only a fifth of the angular diameter of the Moon. Between the 21 February and 4 March the three <u>planets</u> Mars, Venus and Uranus lie nearly in a straight line.

Uranus was discovered by William Herschel on 13th March 1781, nearly 234 years ago. It is the seventh planet from the Sun and lies at an average distance approximately 19 times farther from the Sun than the Earth. It is distinguished by the fact that its polar axis has an axial tilt of approximately 98 degrees, which means that rather than pointing upwards out of the plane of the planetary system its polar axis lies nearly parallel to the plane of the solar system.

With good weather, that is, a clear, cloudless view of the western horizon after sunset, Mars and Venus can be seen without a telescope. Uranus, with an apparent brightness close to that of the faintest stars visible with the unaided eye, can be easily seen with a small telescope or a pair of binoculars. The image shows the sky view at 7pm on 1 March 2015.

Provided by Armagh Observatory

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