

THE SKY THIS MONTH

AUGUST 2008

CAN YOU SPOT THE SEVENTH PLANET?

On March 13, 1781, British astronomer Sir William Herschel reported the discovery of a new comet to the Royal Society of London. By 1783, the object was discounted as a comet and accepted as the seventh planet of our Solar System.

The new planet's name was initially "Georgium Sidus" (George's Star) after the British monarch King George III. By 1850, its name would be officially changed to "Uranus", after the Greek god of the heavens.

Uranus is the third largest planet in the solar system (after Jupiter and Saturn) with an equatorial diameter of 51,120 kilometres, or four times the diameter of the Earth! It lies 2.9 billion kilometres from the Sun; twice Saturn's distance and over 19 times the Earth's distance. The planet requires 84 years (today's average human life span) to orbit the Sun once.

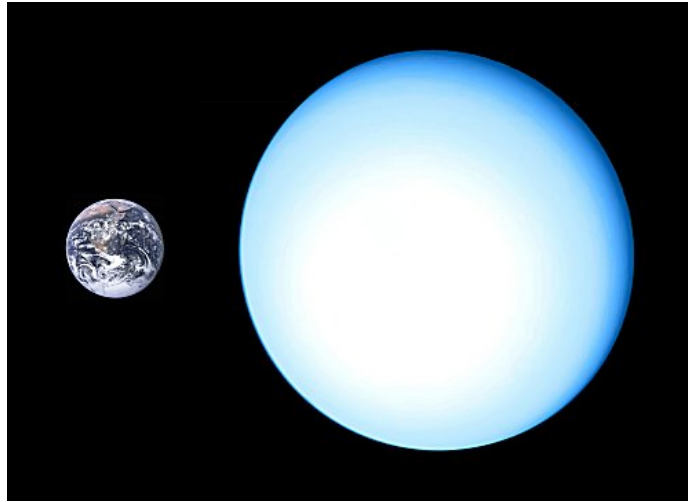


Figure 1: The relative sizes of Earth and Uranus. The image of Uranus was captured by Voyager 2 in 1986. Image courtesy Wikipedia.

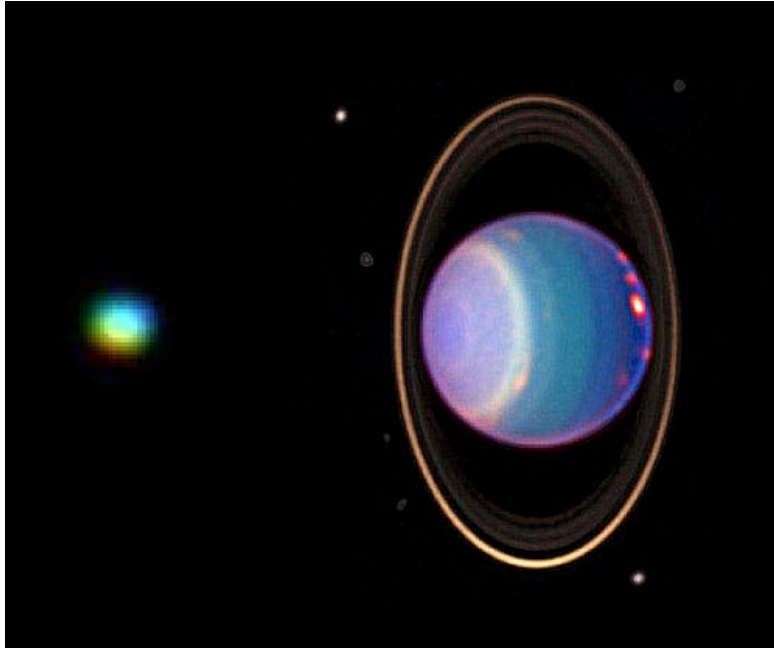


Figure 2: Uranus viewed through the author's telescope (left) and the Hubble Space Telescope (right). Note that Uranus has rings! The dots are Uranus' moons. Image courtesy Wikipedia.

With the naked eye, Uranus looks like a very dim star, unlike the easier naked eye planets (Mercury, Venus Mars, Jupiter and Saturn). If you are sporting, you can try to see it without optical assistance in a very clear dark sky. Binoculars will give you a better chance of spotting it. Use the wide-field star chart (Figure 3) to begin your search!

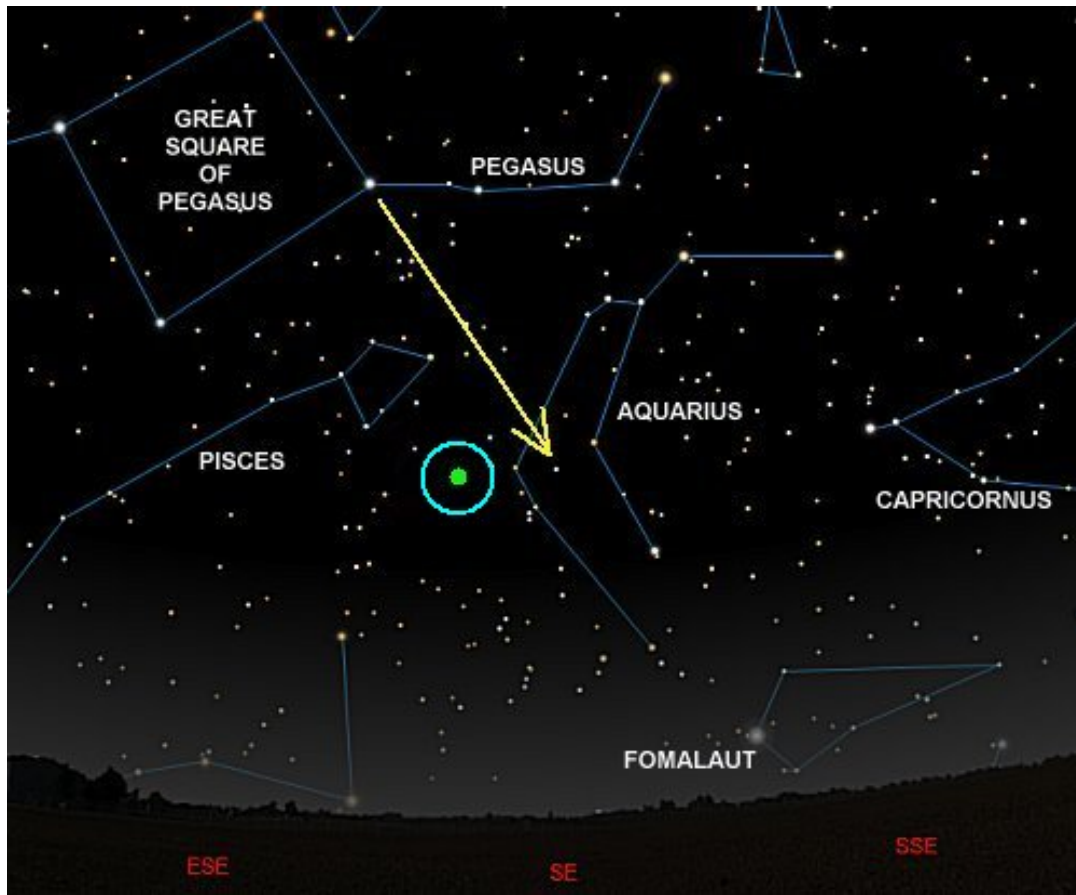


Figure 3: Uranus' location amongst the stars at 11 p.m. August 29, 2008; the night of the first Mill of Kintail Star Party. Use the Great Square of Pegasus to find Aquarius and then find Uranus amongst the local star patterns. The chart's dimmest stars are at the edge of naked eye visibility in a clear dark sky. The blue circle indicates a low-power binoculars' field of view (Figure 4).

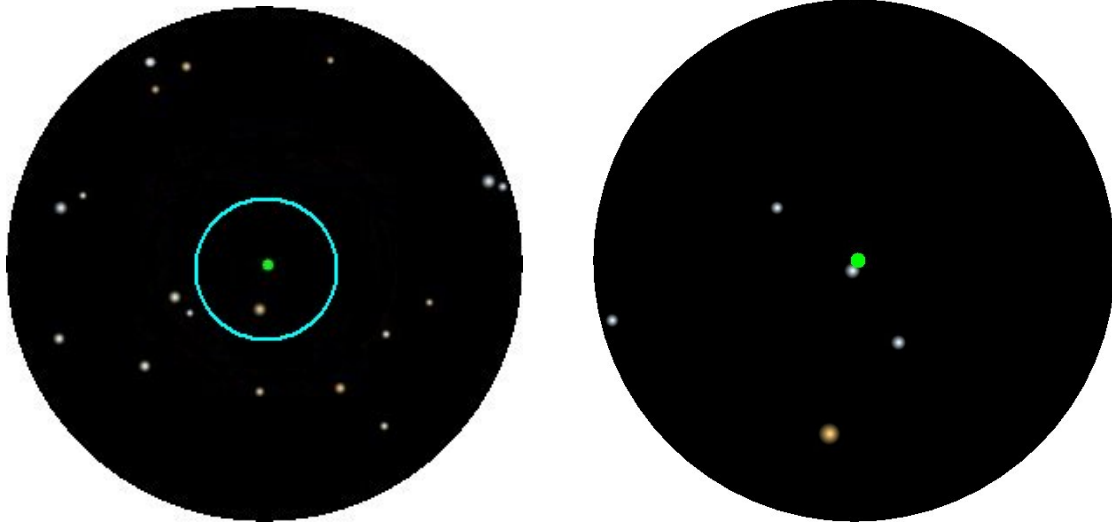


Figure 4 (Left): Uranus through binoculars (4-degree field of view) at 11 p.m. August 29, 2008. The chart's dimmest stars are those seen through binoculars with 40mm objectives. The blue circle depicts a wide-field telescope's field of view (Figure 5).

Figure 5 (Right): Uranus through a wide-field telescope (1-degree field of view) at 11 p.m. August 29, 2008. The orientation of the stars might be seen differently, but the star pattern will be the same. Note the dimmer star appearing near the planet!

LOCAL ASTRONOMICAL EVENTS

Two summer star parties will be held at the Mill of Kintail Gatehouse on the evenings of Friday, August 29th and Friday, September 26th. The planets Jupiter, Uranus and Neptune will be featured! Please visit www.castor2.ca/parties for more information.

THE SKY LAST MONTH – JULY 2008



On the evening of July 5th, the sky was graced with a unique display. Shown, from top left to bottom right, are Saturn, Mars, Regulus and the crescent Moon in a line. Image by the author.

THE SKY NEXT MONTH – SEPTEMBER 2008

WHY THE MOON SHOWS PHASES

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