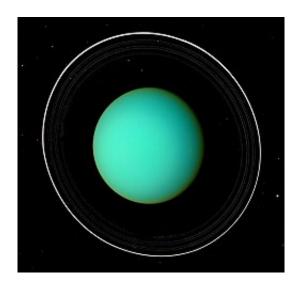


## Venus Meets a Planet Named George

## April 12 2006



Voyager 2 took this picture of Uranus in 1986.

Ancient people didn't have TV or electric lights. So, when the sun went down every night, they got their entertainment by watching the sky. And it was entertaining. Without city lights to interfere, the Milky Way was spectacular. Meteors flitted across the sky. Zodiacal lights chased the sunset.

Of special interest were the five naked-eye planets, the ones you could see without a telescope. (The ancients didn't have telescopes, either.) Countless hours were spent watching Mercury, Venus, Mars, Jupiter and Saturn, whose movements were thought to control the affairs of men.

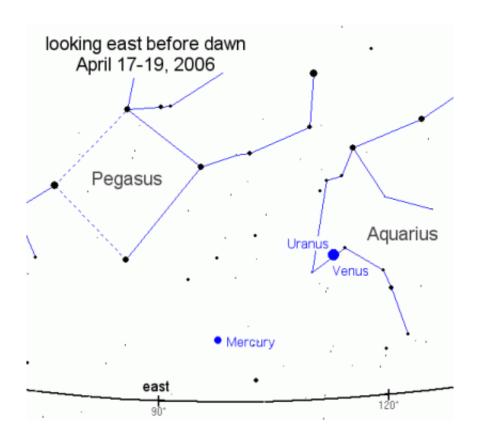
Would you believe, in spite of all that watching, they missed one? There



is a sixth planet you can see without a telescope, a planet named George.

"George" is not as bright as the others, but it is there, glowing like an aqua-blue star of 6th magnitude. It measures four times wider than Earth, has more than 30 moons and a dozen or so thin rings. George goes around the sun every 84 years, always spinning on its side as if something knocked it over.

George is better known as Uranus.



Uranus and Venus are so close together, they are indistinguishable on the scale of this diagram.



English astronomer William Herschel discovered the planet in 1781 during a telescopic survey of the zodiac. He promptly named it the Georgium Sidus (the Georgian Planet) in honor of his patron, King George III. Later, to the everlasting delight of schoolchildren, George was re-named Uranus, the Greek god of the sky.

Uranus had been seen many times before but mistaken for a star. The earliest recorded sighting was in 1690 when astronomer John Flamsteed cataloged it as 34 Tauri, the 34th star of Taurus the Bull. We can understand the error. Uranus is so far from the sun it looks like a star to the unaided eye. And it moves so slowly; you have to watch for decades to realize that it is a wanderer—or, in ancient Greek, a planētēs.

In modern times, Uranus has become all but impossible to see. The planet is naturally faint, and urban lights wipe it out completely. No one notices when Uranus soars overhead.

Nevertheless, you can see Uranus this month. Another planet will guide you to it.

On April 17th, 18th and 19th, Venus and Uranus are going to have a close encounter in the dawn sky. Simply look east before sunrise. As a guidepost, Venus can't be beat. It is so bright, people often think it's a landing airplane. Simply scan Venus with a pair of binoculars (or a small telescope) and you'll see Uranus right beside it. If the sky is very dark, you may be able to lift your eyes from the optics and see Uranus directly.

On April 17th the pair will be separated by about one degree, the width of your pinky finger held at arm's length. On the 18th they'll be even closer together, 0.3 degrees. On the 19th the distance increases again to one degree.



The view through a backyard telescope should be splendid. Diamond-bright Venus has phases, and at the moment it resembles a tiny half-moon. Uranus, meanwhile, is a little blue-green disk, clearly a planet.

Set your alarm and see what the ancients missed.

Source: Science@NASA, by Dr. Tony Phillips

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