

## 8.10: Planet Uranus

**Uranus was the first planet found with a telescope.** Uranus was discovered by Sir William Herschel in 1781, even though others might have recorded Uranus prior to Herschel and not realized what they were seeing. Uranus is often referred to as Neptune's twin, because of similarities in their sizes, colors, and other characteristics.

Uranus rotates on its side. It is believed that this odd rotation is due to a collision with its moon Miranda. The planet shows little atmospheric activity, and actually looks like a green billiard ball. If Uranus has a core at all, it is a very small rocky core.

In its atmosphere, Uranus has more water, ammonia, and methane ices in its atmosphere than Jupiter and Saturn; so it is often referred to as an **Ice Giant**. It is the coldest planet in the solar system. Like Jupiter and Saturn, Uranus also exhibits aurora activity. The planet has 13 rings, composed of dark particles made of dust to less than a meter in diameter. Uranus has 27 known moons (as of August 2014); not as many as Jupiter or Saturn, but definitely its own system of worlds which orbit the planet.

### Uranus at a Glance

#### Characteristics to Compare

##### Atmosphere

- Hydrogen ( $H_2$ ), Helium ( $He$ ), Methane ( $CH_4$ ), Ammonia ( $NH_3$ ), Water ( $H_2O$ )

##### Rotation

- Short rotation — 17.3 hours retrograde (backwards)

##### Revolution

- Long revolution — 84.01 years

##### Rings

- An intricate system of rings:
  - 13 rings total; first 9 found via airborne telescope

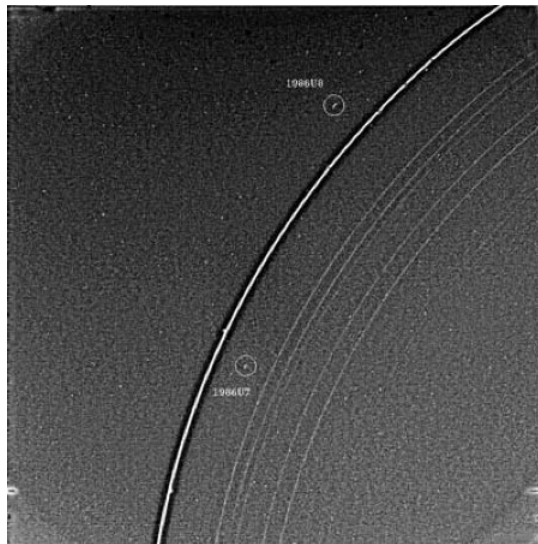
##### Magnetic Field

- Yes, tilted about  $45^\circ$ . Reason for tilt unknown

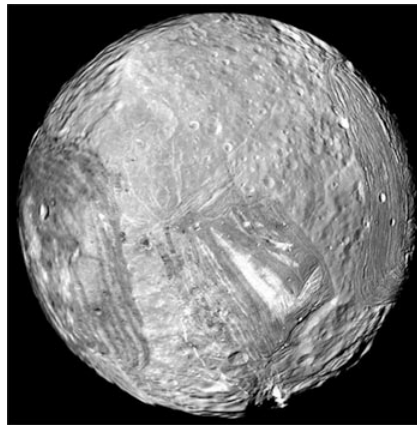
**Uranus Satellite of Distinction** — *Chevron; is this possible tectonic activity? Probably collided with Uranus.*



Image of the planet UranusPublic Domain | Image courtesy of NASA.



Rings and Shepherd moons (in circles)Public Domain | Image courtesy of NASA.



MirandaPublic Domain | Image courtesy of NASA.

---

This page titled [8.10: Planet Uranus](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Lumen Learning](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.