

# This Day in History... February 18, 1930

## Pluto Discovered

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By the 1840s, astronomers had discovered the first seven planets from the sun. But around that time, mathematician Urbain Le Verrier predicted the location of then-undiscovered Neptune after studying irregularities in Uranus' orbit. His predictions were correct and Neptune was discovered in 1846.

60 years later, Percival Lowell suggested that there was a ninth planet causing similar changes to the orbits of Uranus and Neptune. He dubbed it "Planet X" and launched an extensive search at his Lowell Observatory in Flagstaff, Arizona. Lowell and astronomer William H. Pickering suggested several possible coordinates for Planet X, but never found it. Though they did capture a pair of faint images of Pluto in 1915, they didn't realize it. In fact, it was later discovered that there were 14 observations of Pluto, dating back to 1909, before it was officially discovered.

After Lowell's death in 1916, his widow embarked on a 10-year legal battle with the observatory. The search for Planet X didn't resume until 1929. At that time, the job of locating the mystery planet was assigned to 23-year-old Clyde Tombaugh. To do this, Tombaugh had to capture several images of the night sky and then study them to see if objects moved. After almost a year of this, he found a possible moving object on February 18, 1930. Tombaugh discovered Pluto.

Once the discovery was made public, the Lowell Observatory was flooded with suggestions to name the new planet. (As the location of the discovery, they had the honor of naming it.) Among those who submitted ideas was 11-year-old Venetia Burney, who suggested the newest planet be named Pluto, after the god of the underworld. By May, they narrowed it down to three options – Pluto, Minerva, and Cronus. Pluto was selected unanimously.

Over the years, some doubted if Pluto truly was the Planet X that Lowell suggested, as the planet was much smaller than his calculations would have suggested. Additionally, objects of similar size were discovered in the same area of space, known as the Kuiper Belt. This led some to question if Pluto truly was a planet. After it was determined that Pluto did not meet the International Astronomical Union's definition of a planet, it was downgraded to a dwarf planet in 2006.

### How a postage stamp inspired a mission to Pluto

Scientists had long dreamed of exploring Pluto. It was the issuing of a postage stamp that served as a rallying point to launch a mission to the most distant planet in our solar system.

The Voyager mission did its final flyby of Neptune in 1989. Two years later, the USPS issued a set of stamps (US #2568-77) featuring each of the planets with the spacecraft that explored it. But one stamp stood out. Picturing a lone planet, it proclaimed, "Pluto Not Yet Explored." The statement was taken as a challenge.

NASA created the *New Horizons* mission with plans to explore Pluto, its moons, and objects beyond them. The mission launched in January 2006, just seven months before Pluto was reclassified as a dwarf planet. The fastest spacecraft ever built, *New Horizons* traveled to Pluto at an astounding 96,000 miles per hour.

*The stamp that inspired the New Horizons mission.*



The probe carried a number of artifacts into space. These include a US flag, a Florida state quarter (which honors space exploration), and the 1991 stamp that inspired the mission. *New Horizons* reached Pluto on July 14, 2015. The same day, the probe began transmitting back the first batch of data, including the first up-close images we have ever seen of Pluto.

Journeying more than 2.6 billion miles from Earth, the probe transmitted data at a very slow rate, so scientists continued to receive new data about Pluto for more than a year. The mission allowed them to calculate Pluto's exact diameter, view mountains, plains, and ice caps, and see the planet has a reddish hue from the compounds in its atmosphere. They also found that Pluto's atmosphere is being blown into space by solar winds, creating a tail of plasma. Because of Pluto's nearly round shape, scientists suspect the now-frozen planet once had a warm subsurface and a liquid ocean.

All of this new data revealed that Pluto has been changing for much of its existence, contrary to what scientists have long believed. The images showed curious cone-shaped mountains with craters in the center and a potential nitrogen-spewing ice volcano, the only one of its kind to be discovered in our solar system.

After completing its mission to Pluto, *New Horizons* continued on to explore objects in the Kuiper Belt. As of 2025, the probe has traveled about 5.67 billion miles from Earth!

Fun fact – In July 2016, the 1991 "Pluto Not Yet Explored" stamp was certified by Guinness World Records as the farthest-traveled stamp – over 3 billion miles at that time!



*Stamp features a composite of four images taken by the New Horizons spacecraft.*



*Stamp pictures an artists' rendering of the New Horizons spacecraft.*

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