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## This date in science: Clyde Tombaugh, discoverer of Pluto

By [Daniela Breitman](#) and [Deborah Byrd](#) in Science Wire | Space | February 4, 2016

This is the 110th anniversary of Clyde Tombaugh's birth. He was a farm boy who loved astronomy and ultimately discovered Pluto. Planets X and Pluto, here.



Clyde W. Tombaugh at his family's farm with his homemade telescope in 1928, two years before his discovery of Pluto. Image via [Wikimedia Commons](#).

**February 4, 1906 – January 17, 1997.** Today is the 110th birthday of American astronomer Clyde W. Tombaugh, who discovered the planet Pluto.

Tombaugh grew up on a farm in Streator, Illinois. It's said that, after his family's crops were destroyed by a hailstorm, he gave up the possibility of attending college, but never gave up his dream of becoming an astronomer. By himself, he learned mathematical skills required for astronomy, including geometry and trigonometry. He later said:

Can you imagine young people nowadays making a study of trigonometry for the fun of it? Well I did.

And he observed the skies with his homemade telescope.

When he sent drawings he'd made of the planets Mars and Jupiter to Lowell Observatory in Flagstaff, Arizona – hoping to get back some advice – Tombaugh received a job offer. Ultimately, he worked as an observer for the Lowell Observatory from 1929 until 1945.

Finding the long-sought Planet X was Tombaugh's primary assignment at Lowell. [Percival Lowell](#), who had founded the observatory – and who gained fame for his notion of [canals on the planet Mars](#) – had also searched for a Planet X. It remained a priority even after Lowell's death in 1916.

Tombaugh was hired to continue Lowell's search. He discovered Pluto a year later, on February 18, 1930.

Afterwards, Tombaugh was awarded a scholarship, and began studying astronomy at the University of Kansas. He eventually completed his formal education in 1939.

[Hear Clyde Tombaugh's voice on this 1949 radio show We the People. Shout-out to EarthSky community member Dan Schwarz for pointing it out!](#)

[Read more about Lowell's search for Pluto, via Lowell Observatory](#)



Clyde Tombaugh using a device to 'blink plates,' that is, to click back and forth between two images of the same patch of sky, taken on two different nights. On those two images, the distant background stars would not appear to move, but closer objects would move from one night to another. Comparing thousands of images, Tombaugh discovered Pluto. Image via Lowell Observatory.

Why were astronomers led to search for a Planet X in the first place? What started the search that ultimately resulted in Pluto's discovery?

At the beginning of the 19th century, astronomers believed something was gravitationally disturbing the orbit of the 7th planet, Uranus. At the time, Uranus was the outermost known planet. The astronomers concluded another planet must exist beyond Uranus, and the location of Neptune was mathematically predicted. Not long afterwards, in 1846, Neptune was found, based on these predictions.

But the orbit of Neptune had unexplained irregularities, too. And so astronomers believed there was an unknown planet – a Planet X – beyond Neptune.

The search for it led to Pluto's discovery.

Very soon after the discovery of Pluto, astronomers realized it was too tiny to have caused the supposed irregularities in Neptune's orbit. And later the irregularities were explained away by other means.

In 2006, the International Astronomical Union changed the status of Pluto from one of nine major planets in our solar system to [dwarf planet](#).

There are now numerous bodies in the outer solar system that carry the dwarf planet label including Pluto, [Haumea](#), [Makemake](#) and [Eris](#).

Astronomers believe we will eventually find many more small, spherical worlds in the outer solar system.

And what of Planet X? Interestingly, earlier in 2016, astronomers from CalTech announced [new theoretical evidence that a large planet – a Planet X – exists beyond the orbit of Pluto](#). The video below has more about their work. These astronomers hope this theoretical work will inspire other astronomers to search for Planet X.

And so astronomers are still speculating, and searching.

## Evidence of a Ninth Planet

Evidence of a Ninth Planet

<https://www.youtube.com/watch?v=6poHQ2h00ZA>

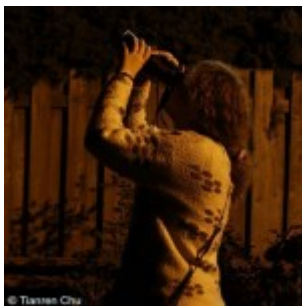


Bottom line: Clyde Tombaugh would have been 110 years old today. He was the only living discoverer of a planet for much of the 20th century and did not live to see the change in Pluto's status to *dwarf planet* in 2006.

Sharing is caring!



## [Daniela Breitman](#)



Daniela Breitman - a Canadian writer, formerly with From Quarks to Quasars - is currently studying Applied Sciences with the goal of becoming an astrophysicist. An amateur photographer, she also loves writing and literature and is a huge science fiction fan. In fact, she's passionate about many things.

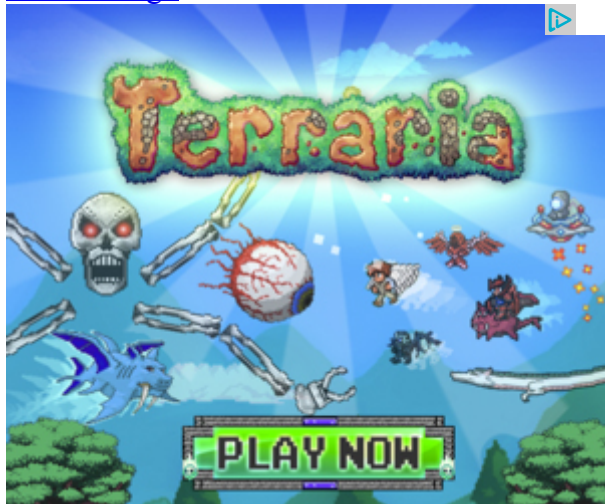
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**Chef Shawk Parson III** • 8 months ago

"Can you imagine young people nowadays making a study of trigonometry for the fun of it? Well I did."

that's the true essence of science and real scientists craving for untiringly intensive research! even today, majority of great discoveries in science are made by people who love to do it not by those who just "obtained and hold a degree" for employment purposes ...

1 ^ | v • Reply • Share ›



**Clint Hunter** • 8 months ago

+ now some of TOM's star dust is on Pluto and going beyond ! (:  
~ Planet NiNe need not exist in the outer astrosphere today as the remains are exactly the gravity grouping one would expect from something the likes of the Scholtz Stars



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[see more](#)



^ | v • Reply • Share ›



**V Tyree** • 8 months ago

2 4 2016 Hello & good day, He left way too soon... &, yes Clyde (where ever you may be), I study all things mathematical, just for the FUN of it. Be well-happy gazing. v @ latitude 38°, longitude 122°. P.S.: thanks for the post!

^ | v • Reply • Share ›

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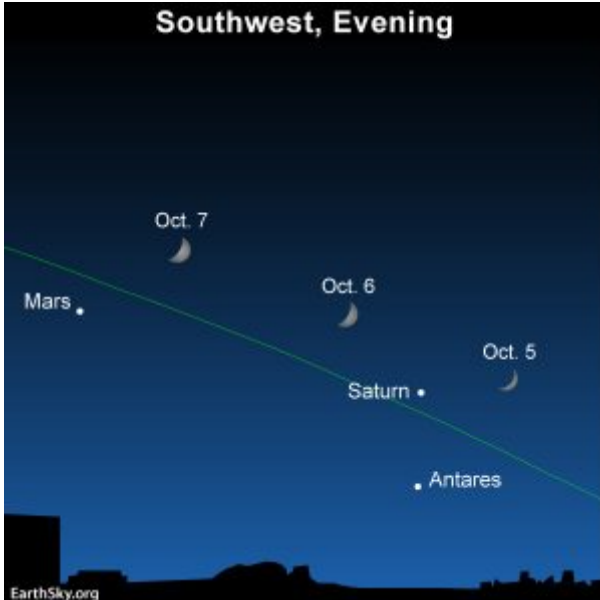
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[Moon passes Venus, October 2016](#)

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