

## Boldly going where no one has gone before



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Humankind has reached another milestone.

NASA's New Horizons probe flew by Pluto July 14, capturing humankind's first close-up looks at the far-flung world.

The craft flew by Pluto's frigid, never-before-seen surface. NASA unveiled stunning photos, showing a reddish world with a massive heart-shaped feature on its face.

Scientists were overjoyed.

While most of us see this as sort of another moderate scientific achievement, to astronomers, geologists, space explorers and historians, it means a great deal more.

To reach for a comparison, it would be like finding another dinosaur, or previously undiscovered ancient civilization.

Yes, we've always known Pluto's whereabouts, but all we had was conjecture and theories.

We now have facts.

We can now boast that all nine of our solar system's traditionally recognized planets have been visited by a robotic spacecraft. This is by no means a simple task. It was a massive undertaking that began before I was born (1962), when NASA's Mariner 2 probe zoomed past Venus.

More than 1,200 scientists, NASA guests and dignitaries ? including 200 reporters ? watched the flyby live at New Horizons' mission control center at Johns Hopkins University Applied Physics Laboratory in Laurel, Md. They chanted a countdown to the closest approach, then cheered and waved American flags as the big moment occurred.

New Horizons is ?a capstone mission,? Glen Fountain, mission project manager from the Johns Hopkins University Applied Physics Laboratory in Laurel, Maryland, told Space.com. ?It is the completion of this initial reconnaissance of our solar system. It's giving us a new perspective about how we as human beings fit into the universe.?

And that's the key right there. The more we learn about our neighbours in our solar system, the more we learn about our own humble beginnings.

Some may not really care about how and when the universe was formed, but for the diehard scientists, that's the key to all things.

While our neighbours, as far as we know, are rather inhospitable and don't support any life, they're still amazing creations unto themselves.

And it shows just how big a difference just a few million miles in space makes. A few million miles one way or another and our ball goes from a blue green beauty to a desolate desert or frozen wasteland.

In a coincidence of cosmic proportions, New Horizons' arrival fell on the 50th anniversary of the first flyby of Mars, which NASA's Mariner 4 spacecraft executed on July 14, 1965.

?You couldn't have written a script that was better,? New Horizons principal investigator Alan Stern, of the Southwest Research Institute in Boulder, Colorado, told Space.com.

There are no longer nine officially recognized planets, of course. The International Astronomical Union famously reclassified Pluto as a ?dwarf planet? in 2006, in a decision that remains controversial today.

Human beings have only been on the planet for a fraction of the Earth's 4 billion years of existence.

Current estimates put the age of the universe at just shy of 14 billion years. The Earth is pegged at 4.5 billion years old. Modern man

(homo sapiens) have only been around for a small fraction of that time – roughly 200,000 years. However, homo sapien predecessors have been dated at 2-6 million years.

As a lover of science fiction, I'm a keen space traveller myself. I've been to Vulcan and Bajor, as well as Alderaan and Naboo, thanks to the imaginations of writers and movie producers. I've been aboard battle cruisers and shuttle craft alike.

The universe is perfect fodder for imagination, even though our neck of the woods seems somewhat bland and boring.

Humans have been curious about the stars and cosmos ever since we began to walk upright and got a better view of the night skies.

Glancing skyward, perhaps we're drawn to where we all came from – the heavens.

Modern man has been almost obsessed by his never-ending appetite for learning the secrets of the universe. We have been reaching out for decades.

Space probe Voyager 1 has become the first man-made object to leave our solar system. It's on a journey away from our family of planets, heading out into unexplored space, and it's still in contact with us here on Earth.

Currently, it's more than 19.6 billion kilometres from Earth, continuing its travels into inter-stellar space. It's flying into the great beyond at roughly 60 kilometres per second.

Voyager 1 and sister probe Voyager 2 were launched in 1977 to explore the outer planets.

Voyager 2 is behind its sister – heading out of the solar system.

Each craft carries a gold-plated audio-visual disc for the benefit of any intelligent extraterrestrials who might be flying by.

The discs carry photos of the Earth and its human inhabitants, a range of scientific information, spoken greetings from key people, a medley, "Sounds of Earth," that includes the sounds of whales, a baby crying, waves breaking on a shore, and a variety of music.

There are musical works by Mozart and blues and spiritual singer Blind Willie Johnson.

Voyager 1 will remain active until its power supply will run out in a little more than a dozen years.

While we continue to celebrate human achievement here on terra firma, we're also learning about our celestial surroundings and making new friends.