

The Remnants of the Solar System

I. Introduction

- In a vast mysterious cold, far, and dark place, exploration has begun. We can see that the Solar System is bigger than we thought.
- The Remnants of the solar System:
 - A. Kuiper Belt, a cold region in space filled with remnants of icy rocks from the Solar System.
 - B. Oort Cloud, the theoretical cloud that covers the entire Solar System. It is a cloud of comets and other objects. Astronomers believe it is way beyond the orbits of Pluto and the Kuiper belt. The Oort cloud is believed to be the source of long-period comets in the Solar System.

II. Body of the Paragraph (1)

- A. Kuiper Belt was named after a Dutch Astronomer Gerard Kuiper Belt because he made a scientific paper in 1951 about objects beyond Pluto, which were well-known to the astronomers during that time.
- B. The first of these strange bodies which astronomers call Kuiper Belt Objects (KBOs), came to light in 1992, discovered by Dave Jewitt and Jane Luu, a pair of scientists who didn't believe the outer solar system was empty.
- C. There are more than 2,000 Kuiper Belt objects or KBO that have been cataloged by observers, but they represent only a tiny fraction of the total number of objects scientists think there are still more.
- D. The first spacecraft to enter the Kuiper Belt was NASA's Spacecraft Pioneer 10 spacecraft, when it crossed beyond Neptune's orbit in 1983. But that spacecraft didn't visit any of the icy worlds. However, the first spacecraft to visit an Object in the Kuiper Belt was NASA's New Horizons, which flew by Pluto and its moons in July 2015.

III. Body of the Paragraph (2)

- A. The Oort Cloud is the most distant region of our solar system. Even the nearest objects in the Oort Cloud are thought to be many times farther from the sun than the outer reaches of the Kuiper Belt.
- B. The Oort Cloud is believed to be a giant spherical shell surrounding the rest of the solar system. The Oort Cloud might contain billions or even trillions of objects.
- C. Because the orbits of long-period comets are so extremely long, scientists suspect that the Oort Cloud is the source of most of those comets.

IV. Conclusion:

- A. The Key Outcome is that the Solar System is bigger than what we know. This is based around the furthest object that takes the orbit around the sun, based on the Sun's gravitational pull. Everything that gets affected by the Sun's gravity is part of the Solar System. This edge of the solar system is well past Pluto and even beyond the Kuiper Belt.
- B. Though we believe there are thousands of these small objects beyond the Solar System, we haven't found a big fraction of them because they are so far away. The smaller objects can lead us to a much bigger planet. The more we discover, the better we will understand and see what's beyond our solar system.

The Remnants of the Solar System.

In a vast mysterious cold, far, and dark place, exploration has begun. When the Solar System formed, much of the gas, dust, and rocks pulled together to form the sun and planets. The planets then swept most of the remaining debris into the sun or out of the solar system. Some of these objects are within the gravitational influence of the Sun while still avoiding the gravity of the large planets like Jupiter. The Kuiper Belt and its compatriot, the most distant and spherical Oort Cloud, contain the leftover remnants from the beginning of the Solar System and can provide valuable insights about the Solar System's birth and beyond. We can now see that the Solar System is bigger than we thought.

The Kuiper Belt is a cold region in space filled with remnants of icy rocks from the Solar System. Scientists were wondering whether the Solar System ends in Neptune until a Dutch astronomer, Gerard Kuiper, published a paper in 1951 about the objects beyond Pluto, where it serves as the reservoirs of the comets that kept flying by towards our Solar System. The Dutch astronomer inspired the discovery and exploration of these objects such that it is generally attributed to him, which is now known as the "Kuiper Belt". The Kuiper Belt is a source of comets, as it is very slowly eroding itself away. The first of these strange bodies which astronomers call Kuiper Belt Objects (KBOs), came to light in 1992, discovered by Dave Jewitt and Jane Luu, a pair of scientists who didn't believe the outer solar system was empty.

There are more than 2,000 Kuiper Belt objects or KBO that have been cataloged by observers, but they represent only a tiny fraction of the total number of objects, scientists think there are still more. Pluto was the first Kuiper Belt Object discovered in 1930. The astronomers at that time had reason to expect a large population beyond Neptune. Although at that time, scientists never thought about having an outer system beyond Pluto. Remarkably, the first spacecraft to enter the Kuiper Belt was NASA's Spacecraft Pioneer 10, when it crossed beyond Neptune's orbit in 1983, but that spacecraft didn't visit any of the icy worlds in the region. However, the first spacecraft to visit an object in the Kuiper Belt was NASA's New Horizons, which flew by Pluto and its moons in July 2015.

The Oort Cloud is a cloud of comets and other objects; and the most distant region of our Solar System. Even the nearest objects in the Oort Cloud are thought to be many times farther from the sun than the outer reaches of the Kuiper Belt. Astronomers believe it is way beyond the orbits of Pluto and the Kuiper belt. It is believed to be the source of long-period comets in the Solar System. The Oort Cloud might contain billions or even trillions of objects.

The Remnants of the Solar System, described as Kuiper Belt and Oort Cloud shows that the Solar System is bigger than what we know. This is based around the furthest object that takes the orbit around the sun, based on the Sun's gravitational pull. Everything that gets affected by the Sun's gravity is part of the Solar System. This edge of the Solar System is well past Pluto and even beyond the Kuiper Belt. Though we believe there are thousands of these small objects beyond the Solar System, we haven't found a big fraction of them yet because they are so far away. The smaller objects can lead us to a much bigger planet. The more we discover, the better we will understand and see what's beyond our Solar System.

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