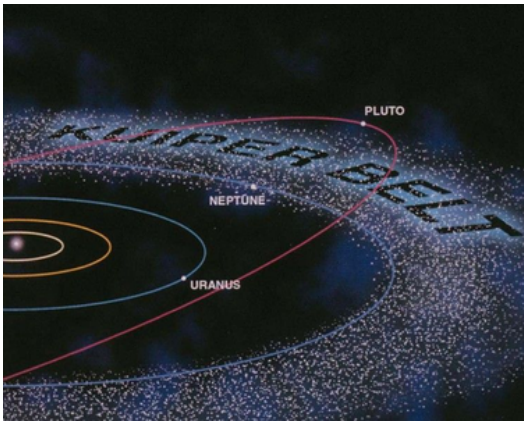
Advanced topics in the Solar System

B2

Kuiper Belt and Dwarf Planets / *Kuiperův pás a trpasličí planetky*

Kuiper Belt

The Kuiper Belt is a vast, doughnut-shaped region of icy bodies, dwarf planets, and comets extending beyond Neptune's orbit (roughly 30 to 50 AU). As a leftover debris field from the solar system's formation, it acts as a "cosmic junkyard" holding thousands of icy worlds, including Pluto and Arrokoth. It is also the primary source of short-period comets—comets that take less than 200 years to orbit the Sun.



Source: NASA

debris [dɛbɹiː] – trosky, sutiny
junkyard [ˈd͡ʒʌŋkjɑɹd] – smetiště
dwarf planet – trpasličí planeta (planetární těleso, které gravitačně nedominuje ostatní tělesa v jeho dráze)

In 2015, NASA's New Horizons became the first spacecraft to fly through the Kuiper Belt, giving humanity its very first close-up pictures of Pluto!

Arrokoth

Arrokoth is a small and icy Kuiper belt object orbiting beyond Pluto. It became the farthest object in the Solar System visited by a spacecraft when the NASA space probe New Horizons flew past it on 1 January 2019. Arrokoth was discovered on 26 June 2014 by the New Horizons Search Team.

Arrokoth is a contact binary—a "snowman"-shaped object composed of two lobes connected by a narrow neck of material. The lobes of Arrokoth, named Wenu and Weeyo, are believed to be former planetesimals that once formed a binary system. They seem to be formed from a collection of smaller planetesimals 4.5 billion years ago. The surface of Arrokoth is tinted red by tholins and shows little cratering, which suggests that it has undergone little change since its formation.



Source: Wikimedia Foundation

lobes [ləʊbs]– laloky
planetesimals [plæn.ɪ̈tes.ɪ.məl] – části, ze kterých později vznikají planety
tholins [θoʊ.lɪn] – třída organických sloučenin vznikajících z dusíku skrz UV

What exactly is a "contact binary" according to the text?

How long did it take for the New Horizons probe to reach Arrokoth after its discovery?