NASA picks post-Pluto destination for New Horizons spacecraft

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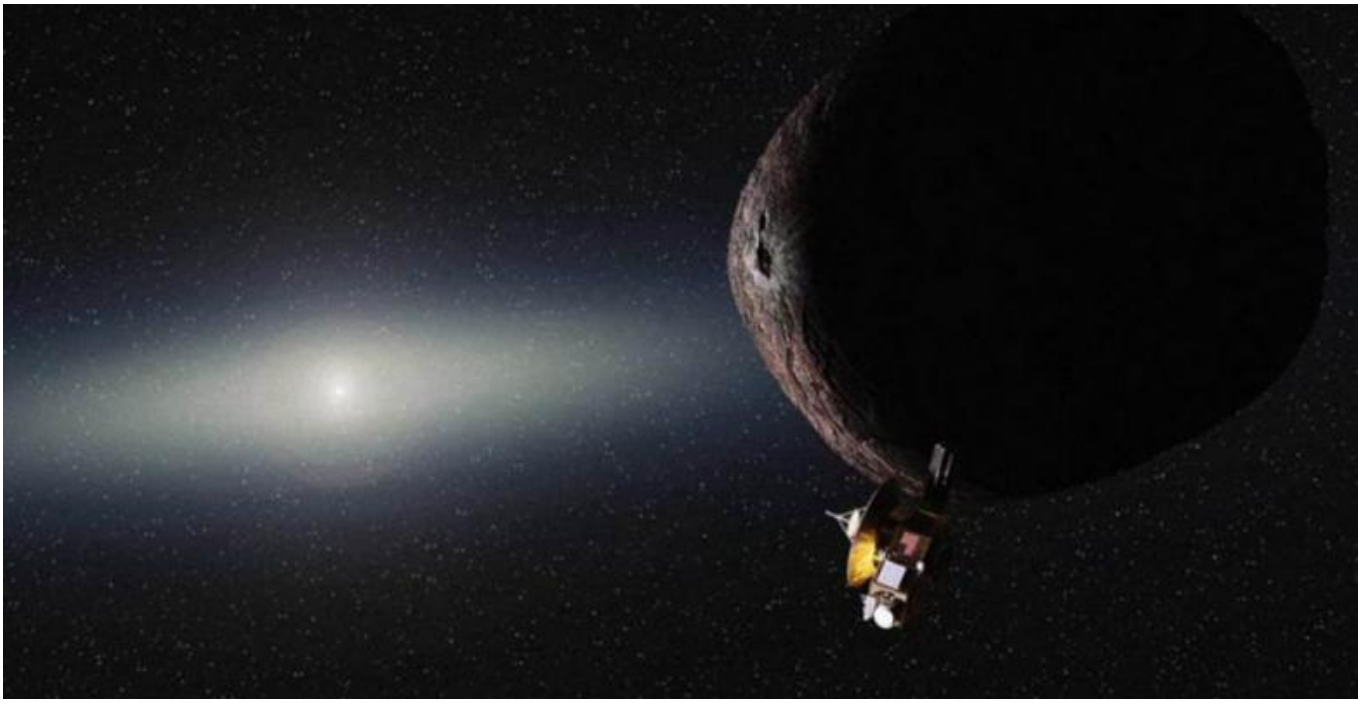

The object, named 2014 MU69, is estimated to be between 25 and 45 kilometres across. Its actual size depends on how reflective its surface is – right now astronomers can only tell how much sunlight it reflects, so it could either be small and shiny or large and dull.

The team hopes its surface will provide a pristine record of the composition of the outer reaches of the solar system – the Kuiper belt it shares with Pluto and other icy bodies. It is a good candidate for preserving the Kuiper belt's history because it is too small to have been reshaped by geological processes, and far enough from the sun to have maintained its original makeup.

2014 MU69 is about two hundred million times fainter than we can see with our naked eyes, so it took almost two weeks of observation with the Hubble space telescope to find it last June. That search also yielded one other possible destination for New Horizons after Pluto, but 2014 MU69 is easier to reach.

Now that NASA has announced its preference for 2014 MU69, the next leg of New Horizon's journey faces one more hurdle: a formal proposal to NASA that is generally expected to succeed.

If the extra trip is approved, the spacecraft will start burning fuel in October and November of this year en route to an expected flyby on 1 January 2019.

After that, New Horizons will continue to head out of the solar system until its radioactive power

source runs out in the 2030s.