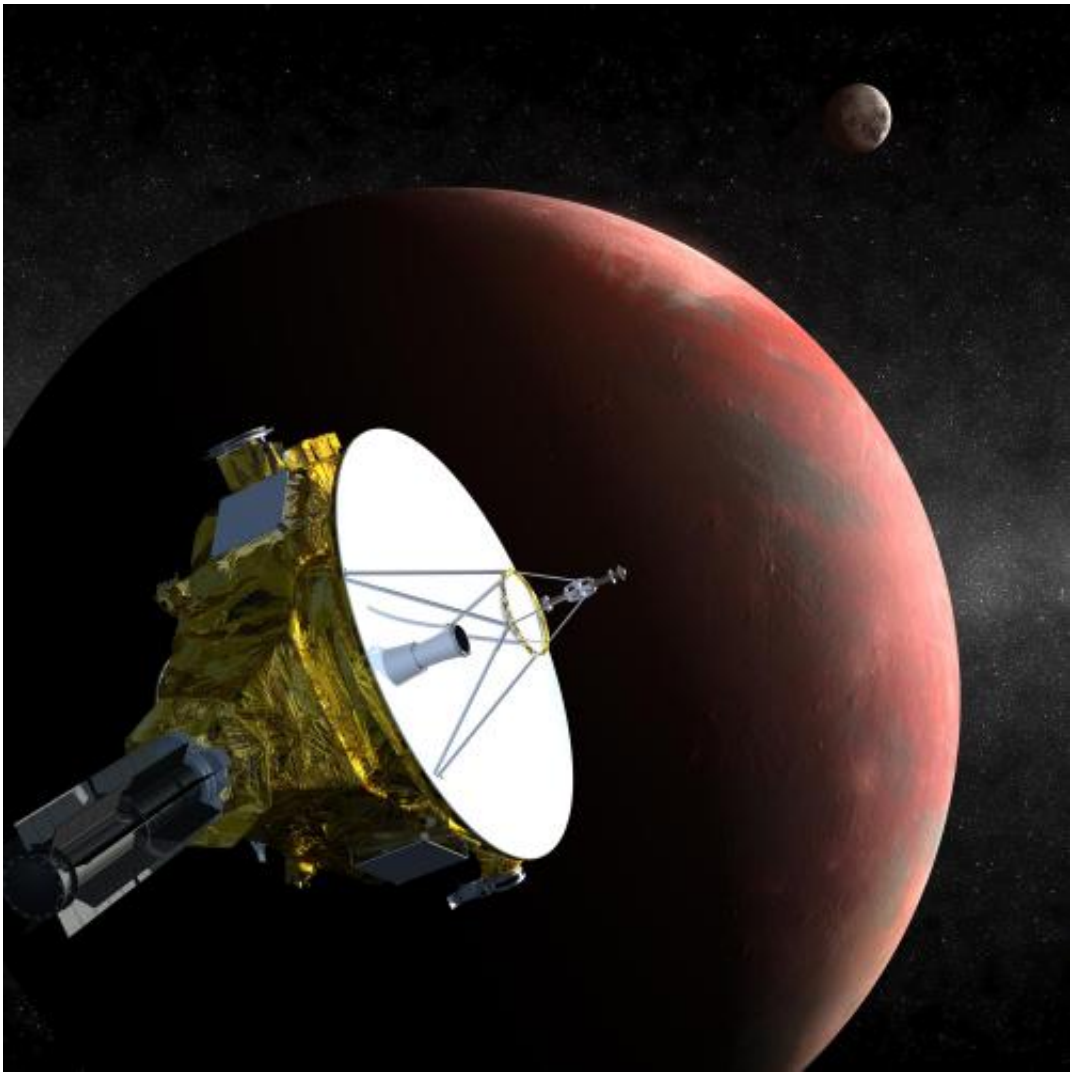
New Horizons sights tiny Pluto moon as spacecraft races toward dwarf planet

September 16 2014, by Elizabeth Howell



Artist's conception of the New Horizons spacecraft flying past Pluto and Charon, one of the dwarf planet's moons. Credit: Johns Hopkins University/APL

Here's Hydra! The New Horizons team spotted the tiny moon of Pluto in July, about six months ahead of when they expected to. You can check it out in the images below. The find is exciting in itself, but it also bodes well for the spacecraft's search for orbital debris to prepare for its close encounter with the system in July 2015.

Most of Pluto's moons were discovered while New Horizons was under development, or already on its way. Mission planners are thus concerned that there could be moons out there that aren't discovered yet—moons that could pose a danger to the spacecraft if it ended up in the wrong spot at the wrong time. That's why the team is engaging in long-range views to see what else is lurking in Pluto's vicinity.

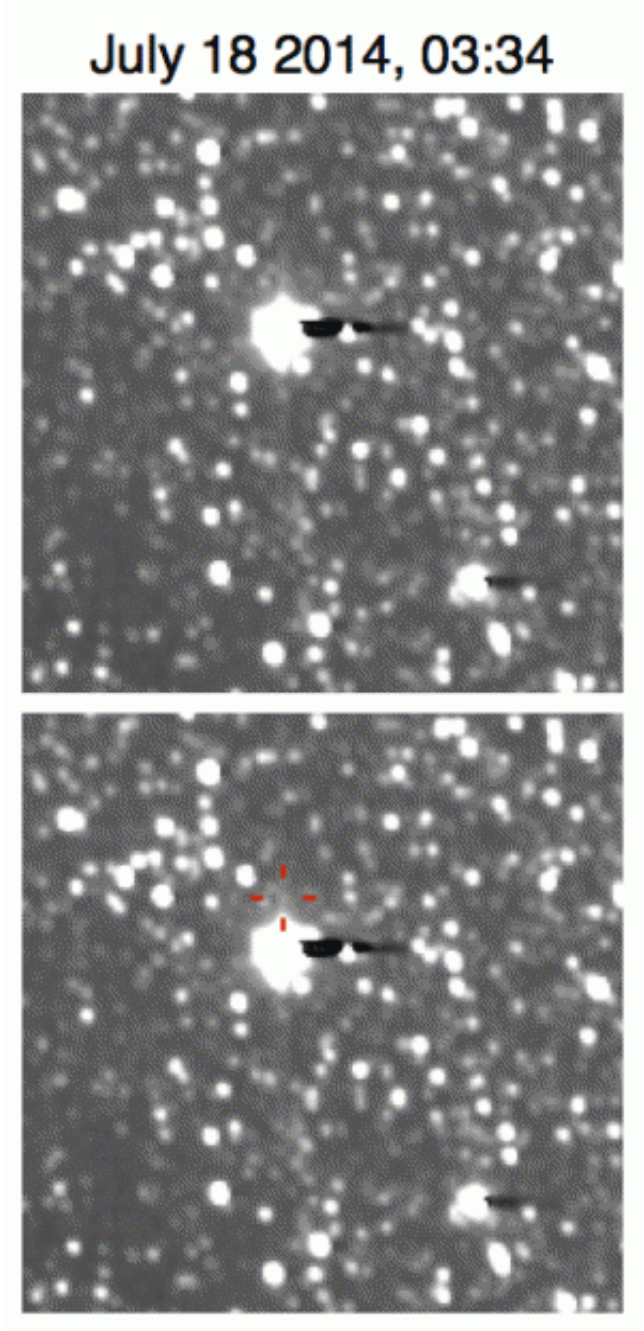
"We're thrilled to see it, because it shows that our satellite-search techniques work, and that our camera is operating superbly. But it's also exciting just to see a third member of the Pluto system come into view, as proof that we're almost there," stated science team member John Spencer, of the Southwest Research Institute.

Hydra was spotted using the spacecraft's Long Range Reconnaissance Imager (LORRI), which took 48 images of 10 seconds apiece between July 18 and July 20. Then the team used half the images, the ones that show Hydra better, to create the images you see above.

The spacecraft was still 267 million miles (430 million kilometers) from Pluto when the images were taken. Another moon discovered around the same time as Hydra—Nix—is still too close to be seen given it's so close to Pluto, but just wait.

Meanwhile, scientists are busily trying to figure out where to send New Horizons after Pluto. In July, researchers using the Hubble Space Telescope began a full-scale search for a suitable Kuiper Belt Object, which would be one of trillions of icy or rocky objects beyond Neptune's

orbit. Flying past a KBO would provide more clues as to how the Solar System formed, since these objects are considered leftovers of the chunks of matter that came together to form the planets.



Watch the difference: Pluto's moon Hydra stands out in these images taken by the New Horizons spacecraft on July 18 and 20, 2014. Credit: NASA/Johns

Source: Universe Today