

# Getting to the Last Planet



Pluto is the last largely unexplored planet in our solar system. We currently know precious little about this tiny rock; even the Hubble Space Telescope photographs of the last planet show it as a kind of blue-green ball with smudged edges. In fact, it's not always the last planet, as every 250 years or so, it changes position with Neptune for 20 years, becoming the 8th planet and leaving Neptune in the outside position. This is because it has a highly elliptical orbit that varies in length by about 2 billion miles.

We know that Pluto is accompanied by a moon about half its size, a moon called Charon. Because of that, some people call the system a double planet. We also are pretty sure both little planets are encased in ice.

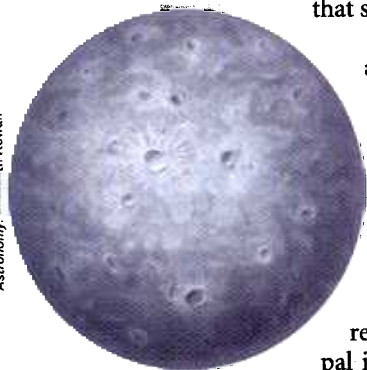
Pluto has been at the center of a debate on just what defines a planet. Some researchers think of it as not so much a planet as a very large asteroid, circling the sun in the busy lanes of the Kuiper Belt. Some distant asteroids have been detected that seem to be almost as large as Pluto.

Such checkered knowledge, however, serves as a spur to planetary scientists, who very badly want to send a spacecraft to Pluto. Talk of such a mission is well underway at NASA. And it was the subject of a good deal of discussion at this year's winter meeting of the AAS. It seems now as if funding for a mission to Pluto has advanced from the dream stage to reality.

Planetary scientist Alan Stern, who is a regular contributor to *Astronomy*, is the principal investigator for New Horizons, a mission that promises to "Shed Light on the Frontier World." The Stern team wants to send global mapping and high-resolution imaging equipment to get a close look at Pluto's surface. It also proposes to send spectroscopy and temperature-mapping equipment and radiometry to gather information on the composition of the double planet.

The New Horizons mission is a breakthrough for the Pluto researchers, who were beginning to wonder if they would ever launch a spacecraft to the last planet. The work has had its first year funding approved and team members are confident funding will continue. (Although you might go to [www.Astronomy.com](http://www.Astronomy.com) to check on minute by minute changes from fickle budgeters.) For details on this mission and other Pluto prospects, check out physicist Andy Cheng's report "Pluto or Bust" on page 46.

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