



This article is print ready and will remain available for 24 hours | [Instructions for saving](#)

» [Search for another transcript](#)

» [NPR home page](#)

## Profile: NASA to launch probe to Pluto

January 17, 2006 from Morning Edition

RENEE MONTAGNE, host: If all goes well, NASA will launch the first spacecraft to Pluto today. The New Horizons probe will be launched on the fastest interplanetary rocket ever. Even so, Pluto is so far away the probe won't get there for nearly a decade. Pluto is the last of the nine familiar planets to be visited by a spacecraft and the program made a major discovery even before leaving the ground. NPR's Richard Harris explains.

RICHARD HARRIS reporting:

If you were in charge of a \$650 million mission to Pluto, you'd probably want to make sure that your precious spacecraft didn't run into a nasty cloud of debris along the way, and indeed, last May, the astronomers planning the New Horizons mission used the Hubble Space Telescope to look around for extra objects orbiting Pluto just in case. Max **Mutchler** from the Space Telescope Science Institute says the astronomer who asked for the pictures was then too busy to look at them.

Mr. MAX **MUTCHLER** (Space Telescope Science Institute): About the middle of June, he gave it to me, and within a day, I discovered these two new moons.

HARRIS: That makes three moons now for Pluto. It also has a large moon called Sharon discovered years ago. The new ones announced on Halloween have yet to be named.

Mr. **MUTCHLER**: They're very small. They're 1/12th the size of Sharon. They are 5,000 times fainter than Sharon, so it's not surprising they haven't been discovered earlier. They're surprisingly close in.

HARRIS: The moons, now that they're known, can easily be avoided as a navigational hazard. Instead, the New Horizons spacecraft will target them with its cameras when it flies by. That will be no earlier than June 2015. Alan Stern, who's the lead scientist on this mission, says there are bound to be other surprises in store regarding the ninth planet from the sun.

Mr. ALAN STERN (Southwest Research Institute): And, you know, whereas we know of four terrestrial planets and four gas giants, we expect that there are hundreds if not thousands of these ice dwarfs, and so this class of planets which we have not yet reconnoitered is in reality the most populous class of planetary body in our solar system.

HARRIS: Stern, from the Southwest Research Institute, says Pluto is bitterly cold, almost 400 degrees below zero, but that doesn't make it boring.

Mr. STERN: It's a scientific wonderland for atmospheric scientists. Its atmosphere is escaping like a comet but on a planetary scale. Its surface is covered in exotic ices and has strong seasonal and global change effects that we know are already taking place.

HARRIS: Pluto's orbit is oblong, and at the moment, it's headed out into parts of space even more remote from us. As it is, it's a bit more distant than Neptune, so it's not easy to get to. Glen Fountain from the Johns Hopkins Applied Physics Lab says New Horizons will launch atop the speediest interplanetary rocket ever, a supercharged Atlas V.

Mr. GLEN FOUNTAIN (Johns Hopkins Applied Physics Lab): Leaving Earth, the New Horizons will be traveling at eight miles per second, and eight hours later, the spacecraft will pass the orbit of the moon. Remember that the Apollo astronauts took some three days to cover that distance. That comparison gives you some idea of the speed at which we'll be traveling.

HARRIS: It'll take just a year to get to Jupiter, but Pluto will still be at least another eight and a half years farther on. The craft is equipped with a plutonium power generator to run its

instruments. There's simply not enough sunlight out there to go solar. That has meant extra safety reviews and extra safety precautions around the Florida launch site. Alan Stern expects that after the Pluto flyby in 2015 or so, there will be plenty of power left, both electricity from the plutonium generator and fuel, so New Horizons will keep on going to explore other Plutolike objects in this region of the solar system which is known as the Kuiper Belt.

Mr. STERN: So a few weeks after the Pluto encounter when we've chosen our target, we'll fire the engines of the spacecraft, but we'll have to fly a distance something like from here to the sun or twice that far to reach these Kuiper Belt objects.

HARRIS: Exploring these remote areas will require a lot of patience, but it's well worth it to these astronomers. After all, it has been almost 30 years since NASA last launched a spacecraft toward a completely unexplored planet. Richard Harris, NPR News.

Copyright ©1990-2005 National Public Radio®. All rights reserved. No quotes from the materials contained herein may be used in any media without attribution to National Public Radio. This transcript may not be reproduced in whole or in part without prior written permission. For further information, please contact NPR's Permissions Coordinator at (202) 513-2000.