

Mission to an Asteroid

Who: Scientists at the Johns Hopkins University Applied Physics Laboratory (APL), Laurel, Md.

What: APL designed and built a spacecraft called Near Earth Asteroid Rendezvous (NEAR) Shoemaker. The spacecraft was sent into orbit around an asteroid called 433 Eros.

When: The spacecraft was launched Feb. 17, 1996, from Cape Canaveral, Fla. It went into orbit around Eros on Feb. 14, 2000. At the end of the mission, it landed on Eros on Feb. 12, 2001.

Why: The mission was to study what asteroid Eros is made of and to learn more about the many asteroids, comets and meteors that come close to Earth. Scientists also hope to learn more about how the planets were formed.

Additional facts:

NEAR Shoemaker is the first spacecraft ever to orbit an asteroid and the first to land on one. NEAR was the first mission in NASA's Discovery Program to study the planets and other objects in the solar system.

Asteroids are small bodies without atmospheres that orbit the sun but are too small to be called planets.

Asteroid 433 Eros is the shape of a potato and measures 8 by 8 by 21 miles. Its gravity is so weak that a 100-pound person would weigh only 1 ounce. If you threw a baseball faster than 22 miles per hour from its surface, the ball would escape into space and never come down.

During its 5-year mission, the NEAR Shoemaker spacecraft traveled 2 billion miles and took 160,000 pictures of Eros.



NEAR Shoemaker spacecraft orbits asteroid 433 Eros.

Statements:

Statement by Bob Farquhar, NEAR Mission Director:

"This mission could not have worked out better."

Statement by Andy Cheng, NEAR Project Scientist:

"Eros is probably older than Earth."

Research Web Sites:

APL's NEAR home page:

<http://near.jhuapl.edu/>

NASA Discovery Program:

<http://discovery.nasa.gov/>

Asteroid facts:

<http://seds.lpl.arizona.edu/nineplanets/>

[nineplanets/asteroids.html](http://seds.lpl.arizona.edu/nineplanets/asteroids.html)