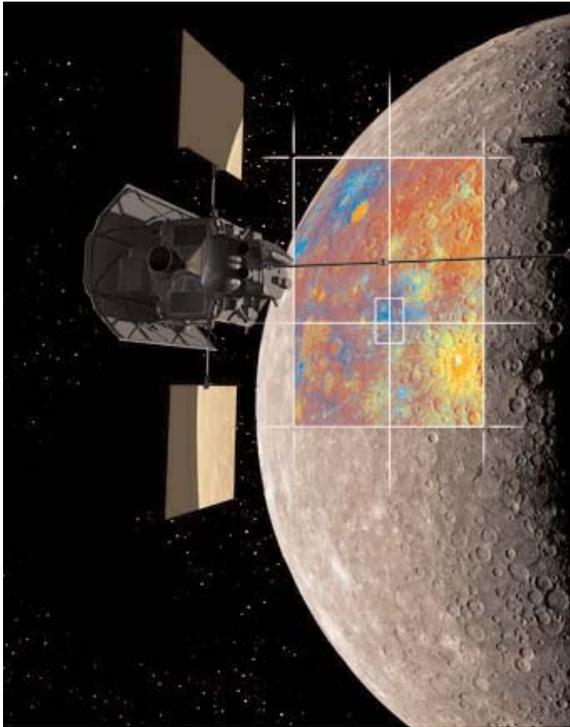


## MESSENGER INFORMATION SHEET



### *The MESSENGER Mission to Mercury*

MESSENGER is an unmanned U.S. spacecraft that will be launched in 2004 and will arrive at the planet Mercury in 2011, though it will not land. Instead, it will make its observations of the planet from orbit. MESSENGER will never return to Earth, but will stay in orbit around Mercury to gather data until sometime in 2012.

MESSENGER is an acronym that stands for "MErcury Surface Space ENvironment, GEochemistry and Ranging," but it is also a reference to the name of the ancient Roman messenger of the gods: Mercury, after whom the planet is named.

MESSENGER will be only the second spacecraft ever to study Mercury: In 1974 and 1975 Mariner 10 flew by the planet three times and took pictures of about half the planet's surface. MESSENGER will stay in orbit around Mercury for one Earth-year; its close-up observations will allow us to see the whole planet for the first time.

Sending a spacecraft to Mercury is extremely complicated. The planet is very close to the Sun; it moves very fast in its orbit, and intense radiation and heat can cause catastrophic consequences. Therefore, engineers and scientists have planned the mission carefully. They have found ways to protect the spacecraft against radiation, and they have built safeguards to make sure it can operate reliably in the difficult Mercurian environment.

During its mission, MESSENGER will attempt to answer many questions about the mysterious planet. How was the planet formed and how has it changed? Mercury is the only rocky planet besides Earth to have a global magnetic field; what are its properties and origin? Does ice really exist near the planet's poles? Answers to these scientific questions are expected to hold keys to many other puzzles, such as the origin and evolution of all rocky planets. As we discover more, we expect that new questions will arise. You could be the one answering these new questions!

For more information about the MESSENGER mission to Mercury, visit: <http://messenger.jhuapl.edu/>

