Several frames from a rotation movie NEAR Shoemaker took on September 19, 2000, from an orbit 62 miles (100 kilometers) above Eros were combined to create these 3-D views of the saddle region.
The Saddle in 3-D

Several frames from a rotation movie NEAR Shoemaker took on September 19, 2000, from an orbit 62 miles (100 kilometers) above Eros were combined to create these 3-D views of the saddle region. 3-D images made using the red and blue color technique are called anaglyphs and must be viewed through red-blue 3-D glasses.

Because of the combined rotation of Eros and spacecraft motion, the images were rotated to create the 3-D views. The images all show the same area but use two movie frames separated by increasing amounts to give greater 3-D depth (from not enough to too much). The first image in the upper left has no depth; the image at upper right is made from adjacent movie frames, while the remaining images are separated by 2, 5, 10 and 15 movie frames.

NEAR Mission

As the first launch in the National Aeronautics and Space Administration’s (NASA) Discovery Program, the Near Earth Asteroid Rendezvous (NEAR) mission is setting the stage for asteroidal exploration and forming a base of knowledge that will be the framework for future asteroid missions. The Johns Hopkins University Applied Physics Laboratory (JHU/APL) designed and built the NEAR Shoemaker spacecraft and manages the mission for NASA. The Mission Team is drawn internationally from universities, government agencies and private industry.

Launched February 17, 1996, NEAR Shoemaker began its orbital mission at asteroid 433 Eros on February 14, 2000. From May through August 2000, the spacecraft traveled in a circular orbit at a radius of 31 miles (50 kilometers) from the center of Eros. It was then boosted to a higher orbit to view Eros from the direction of the sun. In late December 2000, NEAR Shoemaker will descend to a 22-mile (35-kilometer) orbit and operate at that altitude or lower for the remainder of the mission. By February 2001, the NEAR mission will provide the first comprehensive data on the physical geology, composition and geophysics of an asteroid.

For more information visit the NEAR Web site: http://near.jhuapl.edu.