

Nation

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US spacecraft gets closest-ever look at asteroid belt

WASHINGTON—A US spacecraft's photos of its close encounter with an asteroid has yielded results 'beyond what we thought,' a spokesman for Johns Hopkins University in Maryland has said.

The Near Earth Asteroid Rendezvous (NEAR) spacecraft transmitted two black-and-white shots including one taken some 1,800 kilometers from the asteroid that reveals a surface pitted with craters.

On Friday last NEAR flew within 1,200 kilometers of asteroid '253 Mathilde' for 25 minutes at a speed of 10 kilometers per second, the university's applied physics laboratory said.

The first photo of the closest-ever look at an asteroid reveals that one crater is some 19 kilometers deep. It also shows that the asteroid's edges are ragged, evidence that collisions with meteors may have chipped away at the small planet.

Mathilde also appears quite dark, reflecting only four percent of the light, the laboratory said.

NEAR is expected to send NASA some 500 photos of Mathilde.

'With the data we get, we will be

able to determine Mathilde's size, shape, landforms, brightness, and color properties,' Scott Murchie, an official with the National Aeronautics and Space Administration, said during a press conference Friday.

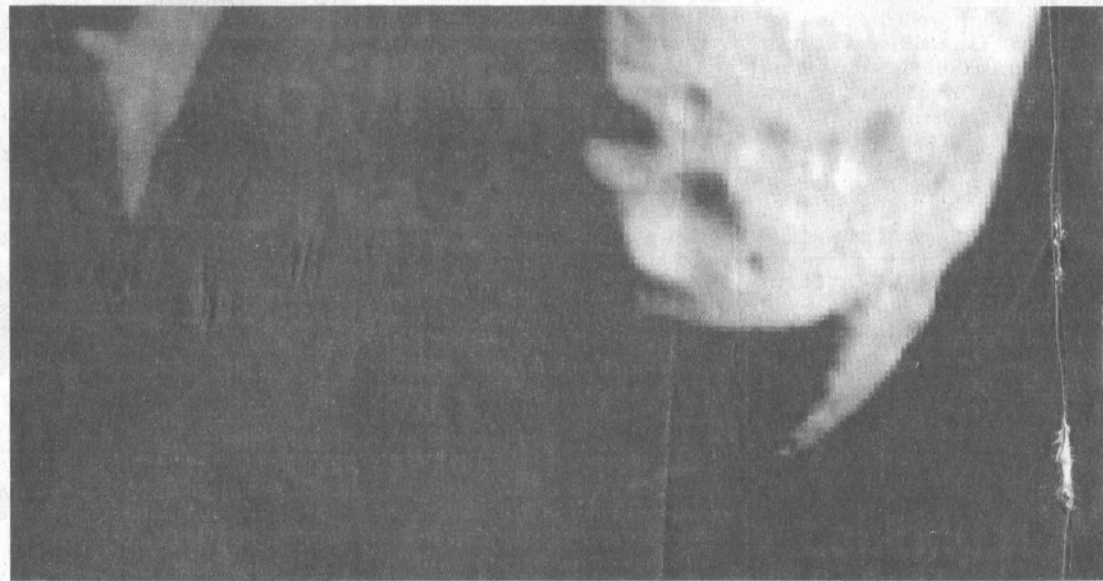
Mathilde, 61 kilometers in diameter, is 'a black asteroid made of carbon-rich rock, believed to be the most primitive — least changed in the last 4.5 billion years,' astronomer Joseph Veverka said. 'Such material has never been studied up close by a spacecraft.'

Astronomer Donald Yeomans said Mathilde's 'bulk density will provide clues as to how the asteroid formed and whether it is a monolithic structure or a collection of smaller fragments.'

The asteroid is named after the wife of French astronomer Moritz Loewy, who was director of the Paris Observatory when it was discovered in 1885.

NEAR, launched on February 17, is the first craft equipped with solar panels to fly beyond the orbit of Mars. It is set to make a year-long flyby of the asteroid Eros starting January 10, 1999 and return to Earth February 6, 2000. — AFP.

ASTRONOMY



NEAR-est approach ever to an asteroid by the Near Earth Asteroid Rendezvous (NEAR) Spacecraft. NEAR snaps photo of 253 Mathilde.

NEAR-MATHILDE ENCOUNTER

June 27, 1997

WASHINGTON: This photo released by the Johns Hopkins University Applied Physics Laboratory and NASA shows the asteroid 253 Mathilde taken by the Near Earth Asteroid Rendezvous (NEAR) spacecraft. NEAR flew within 1,200 km (745 miles) of the asteroid for 25 minutes at a speed of 10 kilometers per second (22,000 miles per hour), the university's applied physics laboratory said—AFP.