

MESSENGER to crash into Mercury

After more than four years of orbiting Mercury, NASA's MESSENGER spacecraft will crash into the solar system's innermost planet in two weeks when it runs out of propellant. The US space agency has said the date of impact is likely to be April 30.

The spacecraft will impact Mercury at more than 3.91 kilometres per second on the side of the planet facing away from Earth. Due to the expected location, engineers will be unable to view in real time the exact location of the impact.

This week, mission operators in mission control at the Johns Hopkins University Applied Physics Laboratory (APL) in Laurel, Maryland, completed the fourth in a series of orbit correction manoeuvres designed to delay the spacecraft's impact on the surface of Mercury.

The last manoeuvre is scheduled for April 24. "Following this last manoeuvre, we will finally declare the spacecraft out of propellant as this manoeuvre will deplete nearly all of our remaining helium gas," said Daniel O'Shaughnessy, mission systems engineer at APL. "At that point, the spacecraft will no longer be capable of fighting the downward push of the sun's gravi-



The MESSENGER spacecraft around Mercury

ty," he said.

Although Mercury is one of Earth's nearest planetary neighbours, little was known about the planet prior to the MESSENGER mission.

"While spacecraft operations will end, we are celebrating MESSENGER as more than a successful mission. It's the beginning of a longer journey to analyse the data that reveals all the scientific mysteries of Mercury," said John Grunsfeld, associate administrator for the Science Mission Directorate at NASA Headquarters in Washington.

The spacecraft travelled more than six-and-a-half years before it was inserted into orbit around Mercury on March 18, 2011.