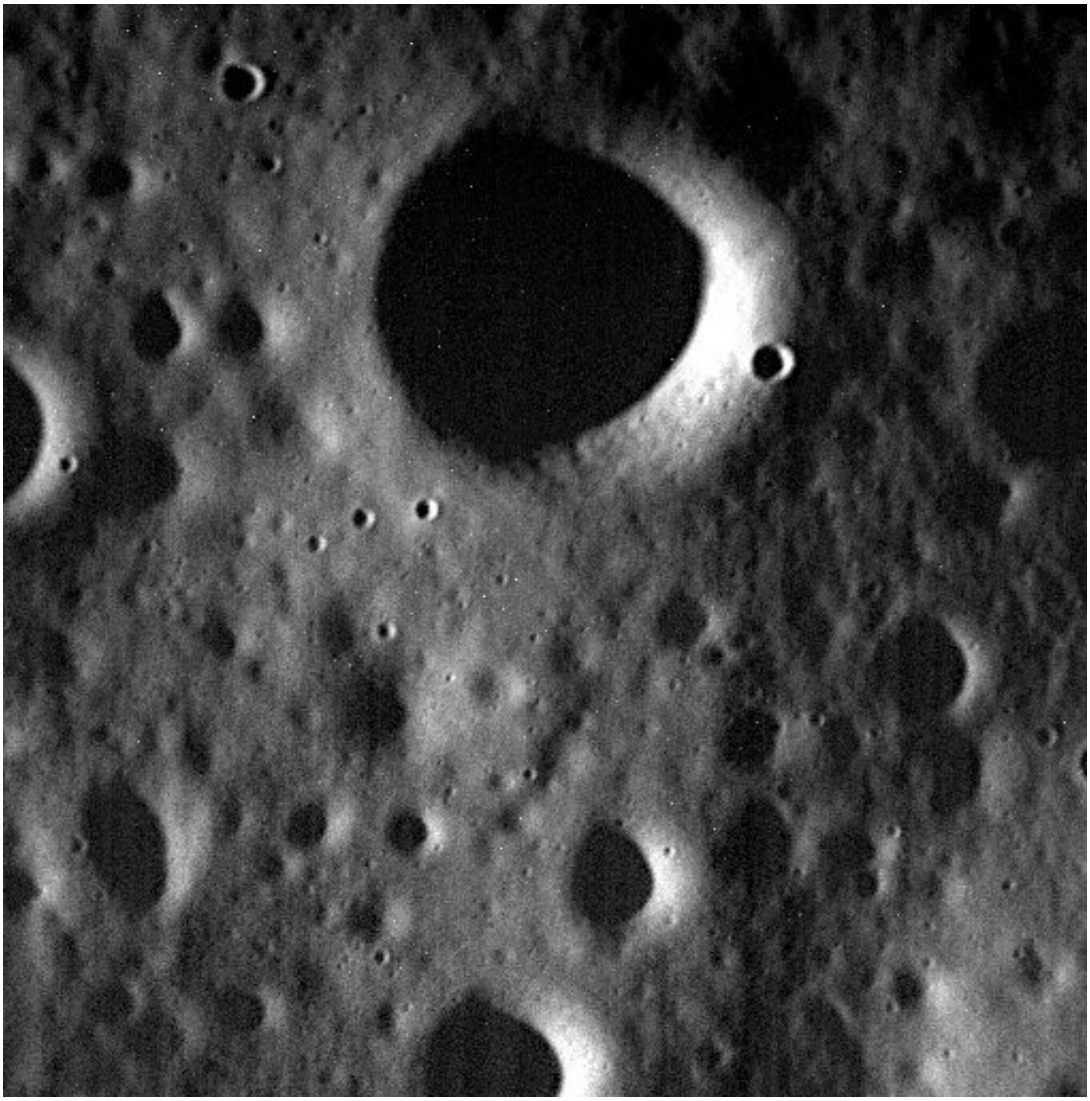
Doomsday at Mercury: NASA craft close to falling into planet

April 30 2015, byMarcia Dunn



This Wednesday, April 29, 2015 photo provided by NASA shows one of the last images sent by the Messenger spacecraft which is expected to impact the surface of the planet Mercury on Thursday, April 30, 2015. The largest crater in this

image has a diameter of 330 meters (0.2 miles). (NASA, Johns Hopkins University Applied Physics Laboratory, Carnegie Institution of Washington via AP)

The only spacecraft ever to orbit Mercury, NASA's Messenger, is ending its four-year tour at the solar system's innermost planet with a crash landing.

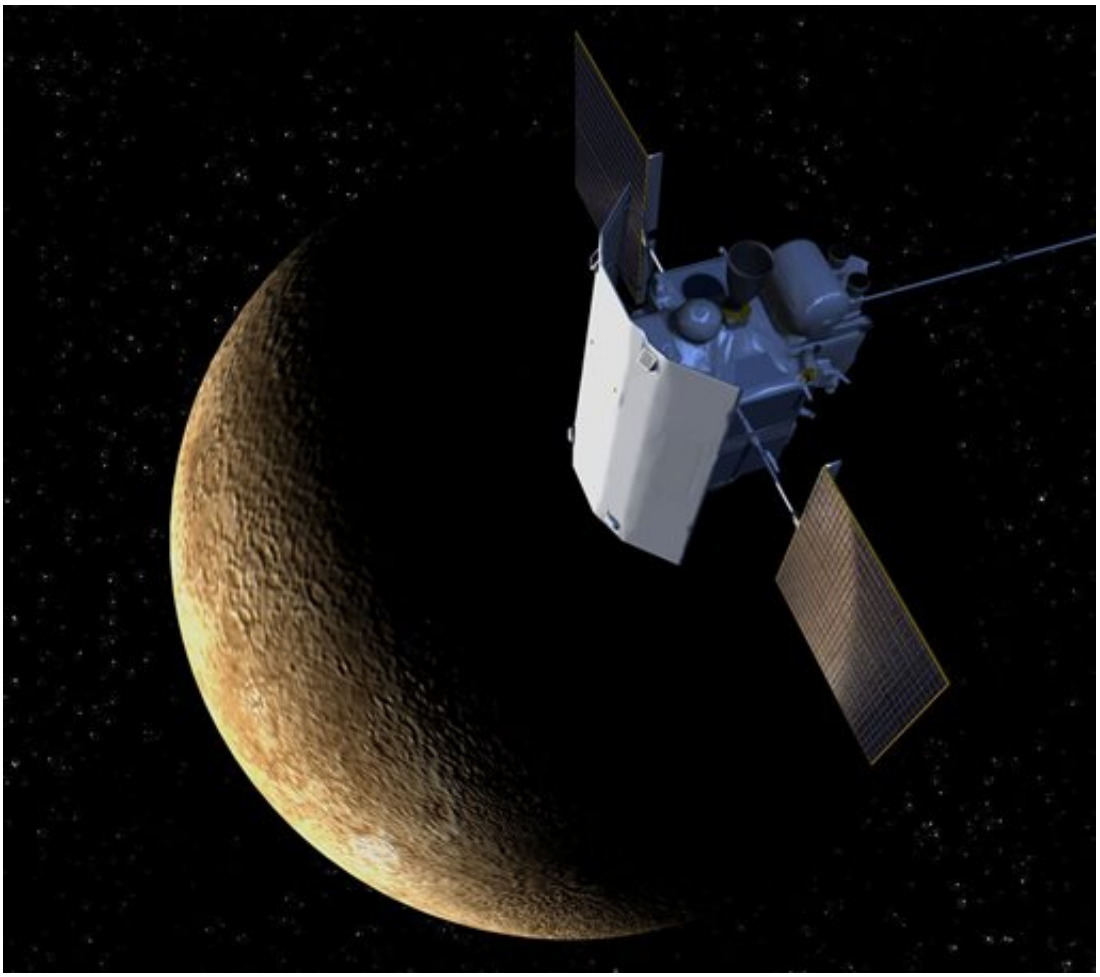
Messenger was expected to slam into Mercury on Thursday afternoon, plunging from orbit at a speed of more than 8,750 mph (14,081 kph) and creating a crater an estimated 52 feet (16 meters) across.

Messenger became the first spacecraft to orbit hot, little Mercury, in 2011. Since then, it's circled the solar system's innermost planet 4,104 times and collected more than 270,000 images.

Flight controllers managed to keep the spacecraft going in recent weeks by using helium gas not originally intended as fuel. But now the gas is gone and gravity is tugging.

Mercury is the last of the rocky inner planets in our solar system—also counting Mars and Venus—to be littered by mankind.

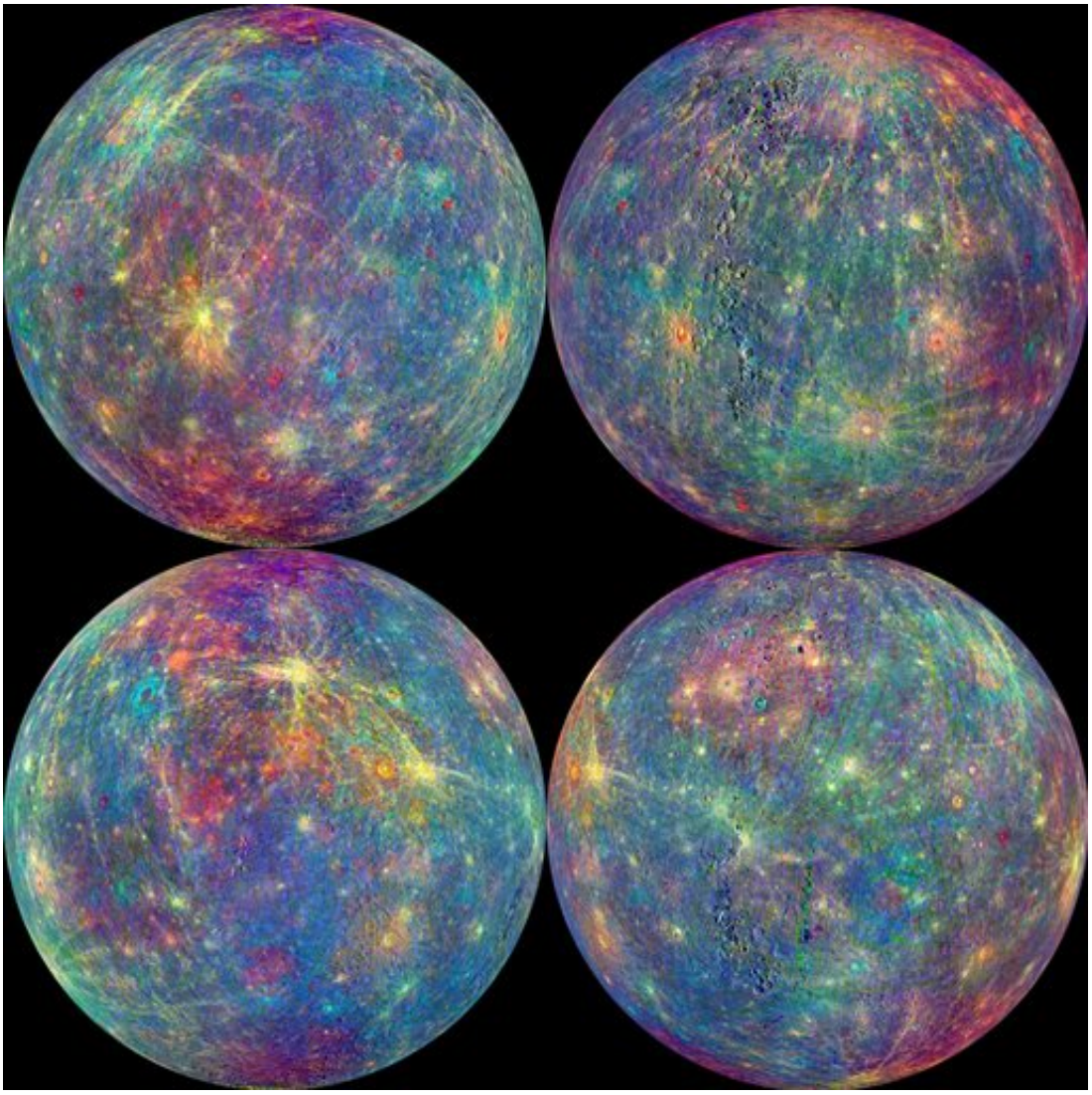
Thursday's crash was expected to occur on the side of Mercury facing away from Earth and telescopes. If controllers cannot regain contact with Messenger when it's supposed to be back in the coverage zone, then they will know that it has, indeed, succumbed to gravity. Confirmation is expected 30 minutes after the impact.



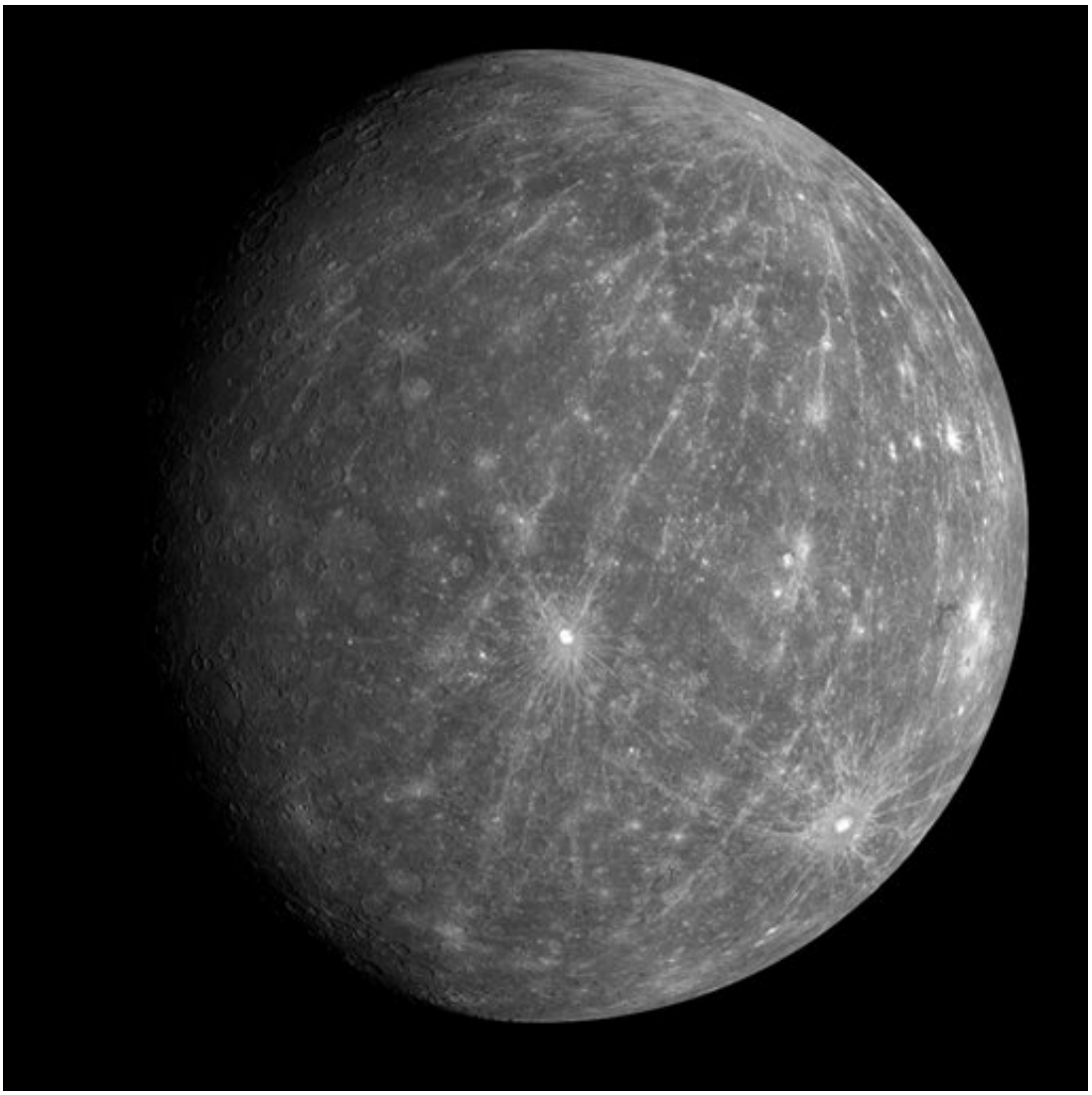
This artist's rendering provided by the Johns Hopkins University Applied Physics Laboratory shows the sunshade on the MErcury Surface, Space ENvironment, GEochemistry, and Ranging (Messenger) around the planet Mercury. The sunshade shields the spacecraft's instruments from heat and solar radiation. (Johns Hopkins University Applied Physics Laboratory via AP) Image converted using ifftoany

"I want to send out a big thank you to everyone who has worked on my mission and has followed my story!!" the Messenger team said via Twitter on Thursday morning. This tweet followed a few hours later, along with a sad face emoticon: "Well, I've got 3 hours and 26 minutes left."

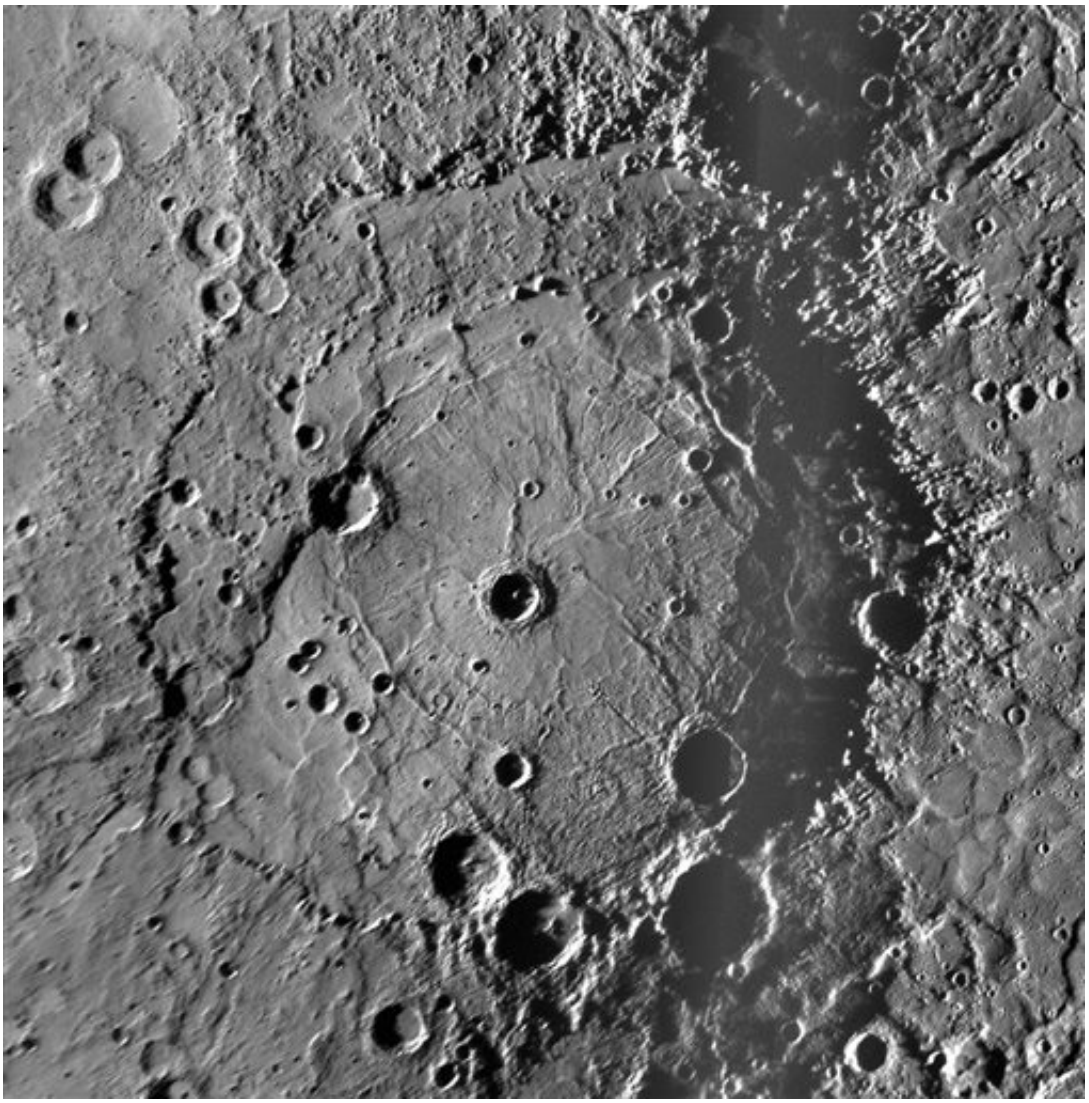
Messenger was launched from Cape Canaveral, Florida, in 2004.



This combination of images provided by NASA shows the readings from the Mercury Atmosphere and Surface Composition Spectrometer (MASCS) instrument aboard the Messenger spacecraft. Colors were added to study both the exosphere and surface of the planet. (NASA, Johns Hopkins University Applied Physics Laboratory, Carnegie Institution of Washington via AP)



This Oct. 6, 2008 photo provided by NASA shows Mercury during the Messenger spacecraft's second flyby of the planet. (NASA, Johns Hopkins University Applied Physics Laboratory, Carnegie Institution of Washington via AP)



This October 2008 image provided by NASA shows the Rembrandt impact basin discovered by the Messenger spacecraft during its second flyby of Mercury. (NASA, Johns Hopkins University Applied Physics Laboratory, Carnegie Institution of Washington via AP)

In this undated photo provided by NASA, technicians with The Johns Hopkins University Applied Physics Laboratory in Titusville, Fla., prepare the MESSESNGER spacecraft for a move to a hazardous processing facility in preparation for loading the spacecraft's hypergolic propellants. (NASA via AP)

More information: NASA: www.nasa.gov/mission_pages/messenger/main/

Johns Hopkins University: messenger.jhuapl.edu/

https://phys.org/news/2015-04-doomsday-mercury-nasa-craft-falling.html