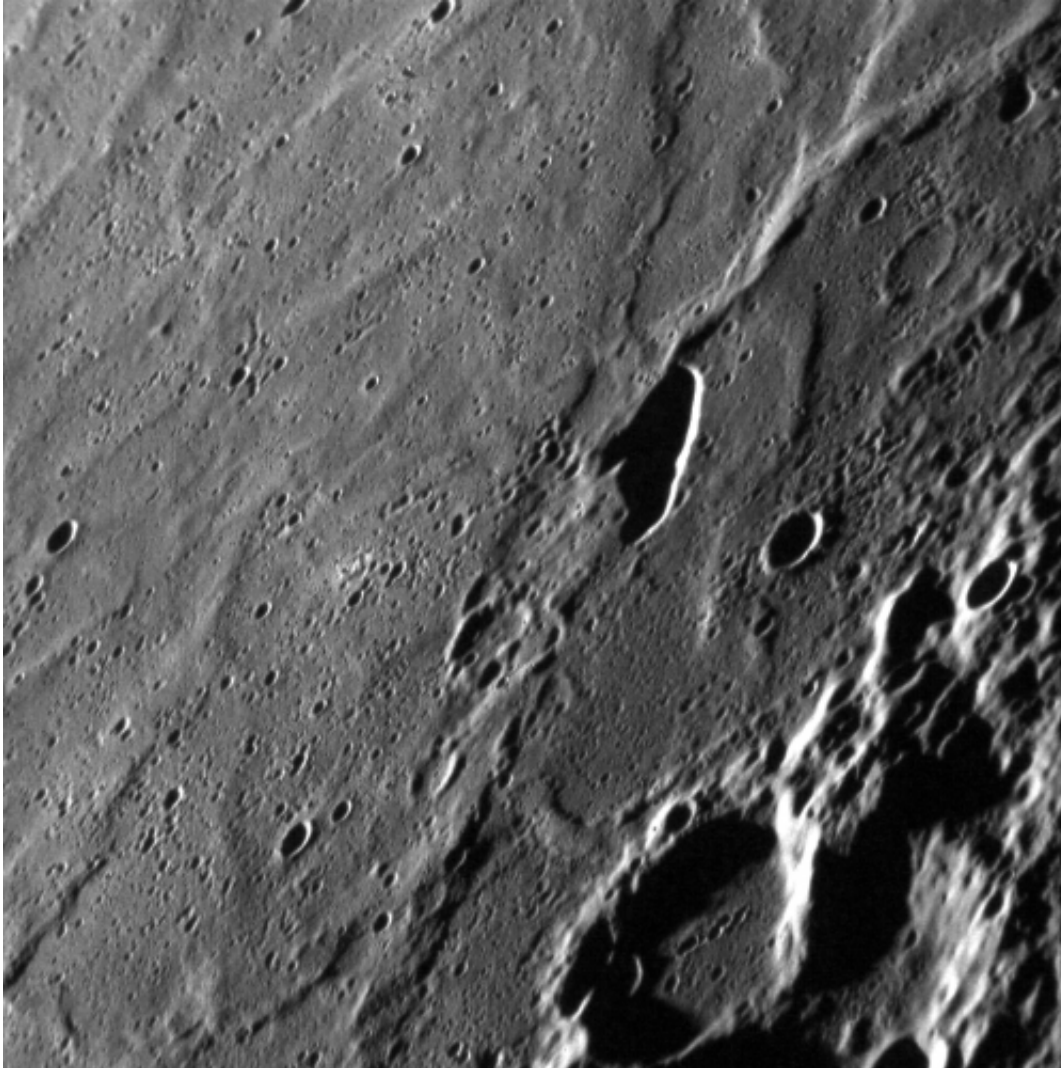


# A peek at a pitch-black pit

March 20 2012, by Jason Major

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A dark, rimless pit crater within the crater Tolstoj on Mercury. Credit: NASA/Johns Hopkins University Applied Physics Laboratory/Carnegie Institution of Washington

MESSENGER captured this high-resolution image of an elongated pit crater within the floor of the 355-km (220-mile) -wide crater Tolstoj on Mercury on Jan. 11, 2012. The low angle of sun illumination puts the interior of the pit crater into deep shadow, making it appear bottomless.

Pit craters are not caused by impacts, but rather by the [collapse](#) of the roof of an underground magma chamber. They are characterized by the lack of a rim or surrounding ejecta blankets, and are often not circular in shape.

Since the floor of Tolstoj crater is thought to have once been flooded by [lava](#), a pit crater is not out of place here.

The presence of such craters on Mercury indicates past [volcanic activity](#) on Mercury contributing to the planet's evolution.

Read more on the MESSENGER mission website [here](#).

Source: [Universe Today](#)

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