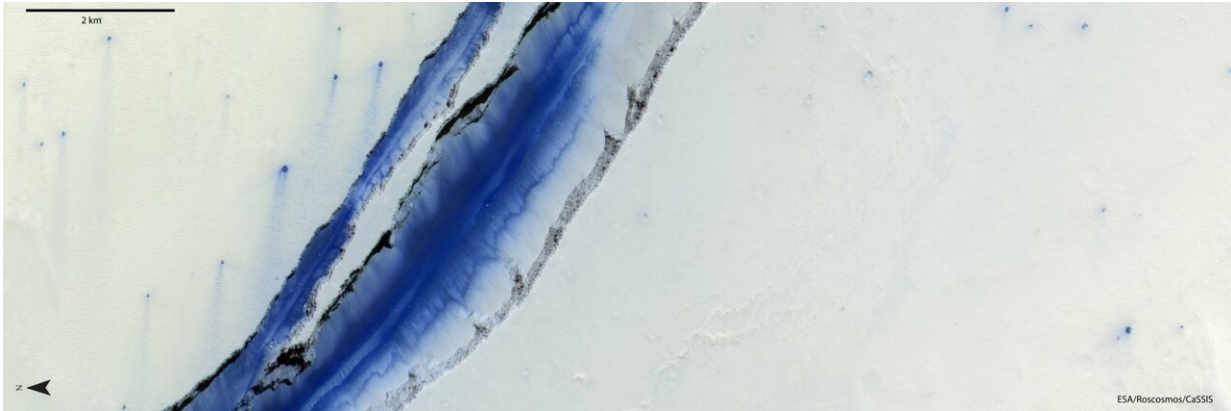


Image: Volcanic trenches on Mars

September 10 2021



Credit: ESA/Roscosmos/CaSSIS

This image of the young volcanic region of Elysium Planitia on Mars [10.3°N, 159.5°E] was taken on 14 April 2021 by the CaSSIS camera on the ESA-Roscosmos ExoMars Trace Gas Orbiter (TGO).

The two blue parallel trenches in this image, called Cerberus Fossae, were thought to have formed by tectonic processes. They run for almost one thousand km over the [volcanic region](#). In this image, CaSSIS is looking straight down into one of these 2 km-wide fissures.

The [floor](#) here is a few hundred meters deep and is filled with coarse-grained sand, likely basaltic in composition, which appears blue in the CaSSIS false-color composite image. The flat volcanic plains nearby are

punctured by small impact craters, which expose possibly the same basaltic materials that we see within Cerberus Fossae.

TGO arrived at Mars in 2016 and began its full science mission in 2018. The [spacecraft](#) is not only returning spectacular images, but also providing the best ever inventory of the planet's atmospheric gases, and mapping the planet's surface for water-rich locations. It will also provide data relay services for the second ExoMars mission comprising the Rosalind Franklin rover and Kazachok platform, when it arrives on Mars in 2023.

Provided by European Space Agency

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