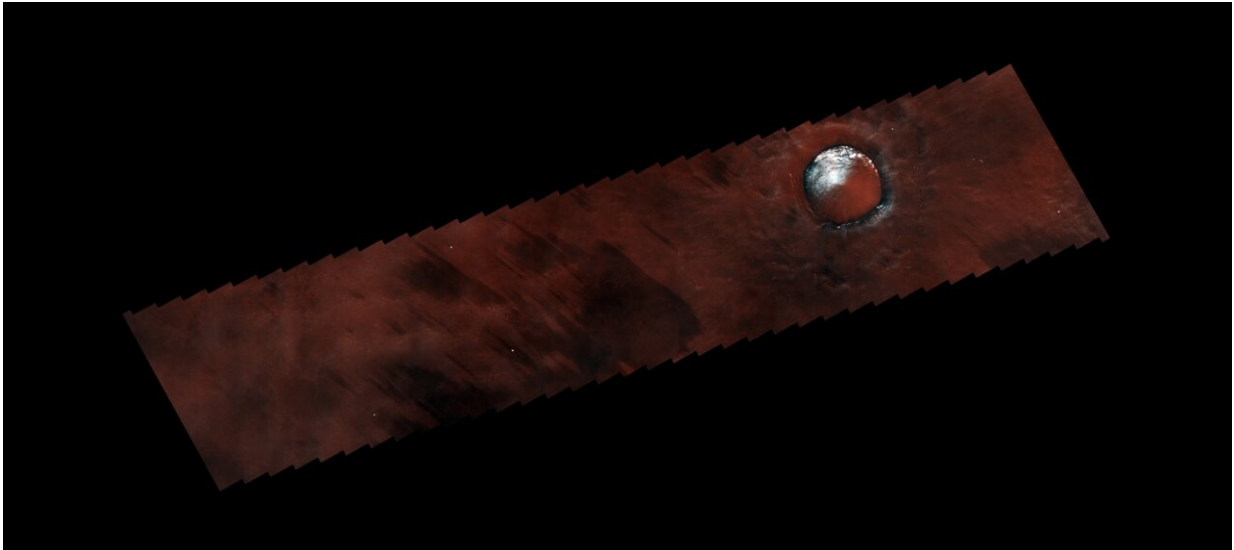


# Image: Red velvet Mars

December 28 2021

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Credit: ESA/Roscosmos/CaSSIS, [CC BY-SA 3.0 IGO](#)

Like a sprinkle of powdered sugar on a rich red velvet cake, this scene from the ESA/Roscosmos ExoMars Trace Gas Orbiter captures the contrasting colors of bright white water-ice against the rusty red martian soil.

This delightful image was taken 5 July 2021 and soaks in the view of a 4 km-wide crater in Mars' north polar region of Vastitas Borealis, centered at 70.6 °N/230.3°E.

The crater is partially filled with water ice, which is also particularly

predominant on its north-facing slopes that receive fewer hours of sunlight on average throughout the year.

The dark material clearly visible on the [crater](#) rim—giving it a somewhat scorched appearance—likely consists of volcanic materials such as basalt.

Most of the surrounding terrain is ice free, but has been shaped by ongoing aeolian processes. The streaks at the bottom right of the image are formed by winds that have removed the brighter iron oxide dust from the surface, exposing a slightly darker underlying substrate.

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 gasses, 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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