

Image: Frosty scenes in Martian summer

12 January 2021



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

The CaSSIS camera onboard the ExoMars Trace Gas Orbiter captured remnant frost deposits in a region near Sisyphi Tholus, in the high southern latitudes of Mars ($74^{\circ}\text{S}/246^{\circ}\text{E}$).

This image was taken during the early morning of a midsummer day in the southern hemisphere. At these [high latitudes](#), [carbon dioxide ice](#) and frost develop. Frost can be seen within polygonal cracks in the terrain, a feature that indicates the presence of water ice embedded in the soil. The black spots observed throughout the scene are due to dark soil being pushed through cracks in the carbon dioxide ice as it sublimates—turns directly from solid ice to vapor—in the summer months.

The scale is indicated on the image.

Provided by European Space Agency

APA citation: Image: Frosty scenes in Martian summer (2021, January 12) retrieved 24 January 2021 from <https://phys.org/news/2021-01-image-frosty-scenes-martian-summer.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.