

# BACK SCATTER

## A Martian ice mound

This past December marked the 15th anniversary of the arrival of the European Space Agency's *Mars Express* at the red planet. Although the orbiter's original mission was to last only 687 days, or one Martian year, it has been extended multiple times—currently through the end of 2020. *Mars Express* is the longest ESA mission still in operation.

This overhead, natural-color composite view of the Korolev crater was assembled from observations by the spacecraft's High Resolution Stereo Camera taken during five different orbits. At a latitude of 73° N,

the crater is located in the northern lowlands just south of a broad dune field that partially encircles the north polar ice cap. It has a diameter of 82 km and is filled with a mound of water ice some 1.8 km thick, comparable in volume to Canada's Great Bear Lake. Despite lying outside the ice cap, the deposit is stable year-round because the crater acts as a natural cold trap: It retains a layer of cold air that insulates the ice below it. (Image 412943 © ESA/DLR/FU Berlin, CC BY-SA 3.0 IGO, cropped from original.)

—RJF

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