

A Long and Winding Channel in Tharsis

The Tharsis region of Mars is covered in vast lava flows, many with channels. Some channels, however, resemble features that may have been formed by water. In this image, we see a smooth, flat-bottomed channel within the roughly irregular edges of a possible lava flow. This long, winding channel runs for 115 kilometers from its source, maintaining a nearly consistent width. There is also a streamlined island within the channel, which is 1.25 kilometers long.



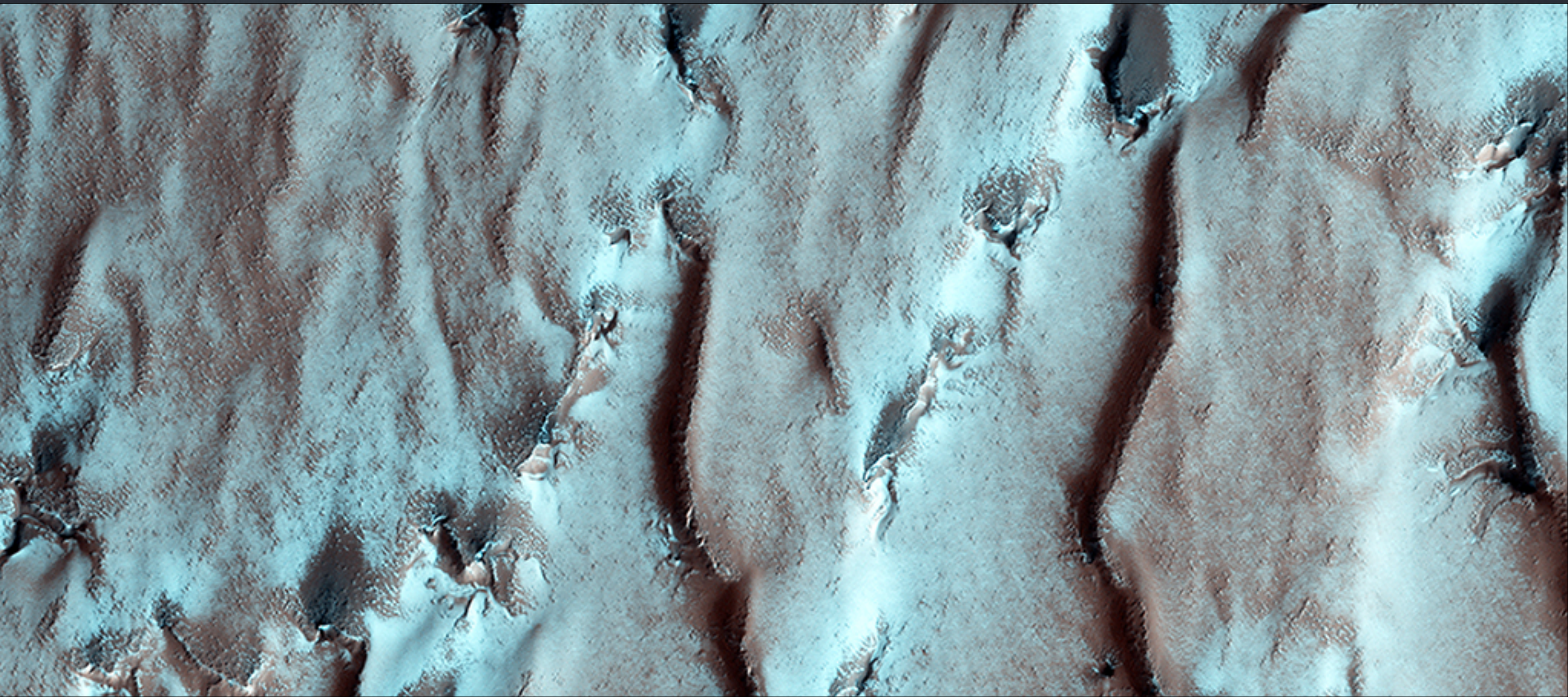
Deposits along the Northern Wall of Melas Chasma

It has been known since the 1970s when the Viking orbiters took pictures of Mars that there are large (i.e., several kilometers-thick) mounds of light-toned deposits within the central portion of Valles Marineris. More recent higher resolution images of Mars, including this image of Melas Chasma, show that the wall rocks of Valles Marineris also contain similar, albeit thinner, light-toned deposits.



A Transition from Depressed to Inverted Channels in Gorgonum Basin

This image shows a transition from depressed to inverted channels in the Gorgonum Basin. In the darker terrain, there are two channels that display depressed topography. As these two channels cross into the underlying brighter terrain, the channels now stand above the surrounding area, indicating they are inverted in topography. This change from depressed to inverted topography is the result of what is called “differential erosion.”



On the Edge of the South Pole Layered Deposit

This image shows the edge of the Martian South Polar layered deposit. The stack of fine layering is highlighted by the rays of the polar sun. These layers show the pervasive red coloring of Mars which have built up over the ages. While this is a polar deposit, no ice or frost is visible on these layers, as they face the sun.